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**THE DEVELOPMENT OF
HEALTH SYSTEM PERFORMANCE
ASSESSMENT FRAMEWORKS
IN MALTA AND BEYOND
AND THEIR IMPACT UPON POLICY MAKING**

by

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**A thesis submitted in fulfilment of the requirement for the degree
of Doctor of Philosophy (PhD) in Health Sciences**

Warwick Medical School, University of Warwick

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DEDICATION

This thesis is dedicated to my late parents, Dr Alfred Grech and Mrs Patricia Grech, who instilled a thirst for knowledge in me and a determination to succeed in both my professional and personal life. Moreover, their steadfast commitment towards upholding the values of honesty and integrity have guided me throughout my life, and for this I am eternally grateful.

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DECLARATION

This thesis is submitted to the University of Warwick in support of my application for the degree of Doctor of Philosophy. It has been composed by myself and has not been submitted in any previous application for any degree.

All the work presented was carried out by the author. However, Chapter 5 (Developing a National Health Systems Performance Assessment Framework for Malta) was part of a national project and the methods and results of this chapter can be seen in a report edited by the author and published in 2015 by the Ministry for Energy and Health entitled ‘Report on the Performance of the Maltese Health System’.



Dr Kenneth Grech

ABSTRACT

Introduction and aims: Following the 2008 financial crisis, performance monitoring and evaluation in the form of Health System Performance Assessment (HSPA) received heightened attention and is now used by policy makers and health service leaders for decision taking. However, despite its increased importance and relevance, there is, as yet, no common internationally recognised standardised methodology for its development and implementation. Moreover, whilst there is ample evidence linking HSPA with service improvement, the literature on the impact of HSPA upon health policy-making is limited. The research questions aim at addressing these two research gaps, looking into the most appropriate method for developing a health system performance assessment framework for Malta and examining the role, if any, that national health system performance assessment frameworks play in the development of national health policy. These two facets of HSPA are the focus of this research, where a methodology for implementing HSPA in a small state (Malta) is developed and the relationship between HSPA and policy development at national and European level is thoroughly investigated.

Methods: The study consisted of three phases. A comprehensive document analysis was first carried out. This was followed by the development and implementation of a HSPA framework and performance assessment report for Malta. The final phase consisted of a three-year ethnographic study across Europe's capitals, resulting in the collection and analysis of data on the relationship between HSPA and health policy development in the European region.

Results: HSPA methodology must combine scientific robustness with policy constraints to take into account the political exigencies of the health system it is purported to assess. This is deemed both important and appropriate for HSPA, especially for small states like Malta. The research also reveals the unique role HSPA plays in policy development, as one of the many variables that influences health policy. However, the study also goes on to highlight the mismatch between the evidence generated by HSPA and a more evidence-based approach to policy making.

Conclusions: The study concludes by proposing a new model for policy making, incorporating HSPA as a central tenet of this process. Several options are then suggested to better align the disparate agendas of policy makers and researchers, such as matching the research and policy priorities closely at the start of the research and policy process.

ABBREVIATIONS

A-IQ1	Austrian Inpatient Quality Indicators
AGENAS	<i>Agenzia Nazionale per i Servizi Sanitari Regionali</i> National Agency for Regional Health Services, Italy
AT	Austria
BE	Belgium
BG	Bulgaria
BMI	Body Mass Index
CHF	Congestive Heart Failure
CIHI	Canadian Institute for Health Information
CION	European Commission
COAD	Chronic Obstructive Airways Disease
COFOG	Classification of the Functions of Government
CVD	Cardiovascular Disease
CY	Cyprus
CZ	Czech Republic
DE	Germany
DG SANCO	Director General Health (later SANTE)
DG ECFIN	Director General Economic and Financial Affairs
DHCPR	Dutch Health Care Performance Report
DHIR	Directorate of Health Information and Research
DK	Denmark
DMP	Disease Management Programmes
DRG	Diagnostic Related Group
ECHI	European Core Health Indicators
ECHO	European Collaboration for Health Optimization
EDI	Early Development Instrument
EE	Estonia
EG	Expert Group on Health System Performance Assessment
EHES	European Health Examination Survey
EHIS	European Health Interview Survey
EHSPI	Enhancing Health Systems Performance Initiative
EL	Greece

EOHSP	European Observatory on Health Systems and Policies
EP	European Parliament
EPSCO	Employment, Social Policy, Health and Consumer Affairs Council
ERRIN	European Regions Research and Innovation Network
ES	Spain
ESPAD	European School Survey Project on Alcohol and Other Drugs
ESSPROS	European System of Integrated Social Protection statistics
EQLS	European Quality of Life Surveys
EU	European Union
EUEPIH	EU Expert Panel on Effective Ways in Investing in Health
EUREGHA	European Regional and Local Health Authorities
EXPH	Expert Panel on Effective Ways of Investing in Health.
FI	Finland
FR	France
GDP	Gross Domestic Product
HBSC	Health Behaviour in School-aged Children Survey
HCQI	Health Care Quality Indicator
HFA	Health for All
HIS	Health Information System
HMO	Health Maintenance Organisation
HR	Croatia
HSPA	Health System Performance Assessment
HTA	Health Technology Assessment
HU	Hungary
IC	Integrated Care
ICP	Integrated Care Pathways
ICT	Information Technology
IE	Ireland
IFAQ	Financial Incentives for Quality Improvements
IMF	International Monetary Fund
IOM	Institute of Medicine
IT	Italy
JAF	Joint Assessment Framework
JHSRP	Journal of Health Services Research & Policy

KCE	Health Care Knowledge Centre (Belgium)
LT	Lithuania
LU	Luxembourg
LV	Latvia
MDH	Mater Dei Hospital
MT	Malta
NCD	Non-Communicable Disease
NEWG	National Expert Working Group
NHIS	National Health Information Survey
NHSS	National Health System Strategy
NICE	National Institute for Health and Care Excellence
NL	Netherlands
NO	Norway
NOIS	National Obstetric Information System
NOKC	Norwegian Knowledge Centre for the Health Services
NQIS	Norwegian National Quality Indicator System
NSF	National Service Framework
OECD	Organisation of Economic and Co-operation and Development
PAF	Performance Assessment Framework
PAR	Participatory Action Research
PATH	Performance Assessment Tool for Quality Improvement in Hospitals
PESTAL	Political, Economic, Social, Technological, Environmental and Legal
PI	Performance indicator
PL	Poland
PSSRU	Personal Social Services Research Unit
PT	Portugal
QoC	Quality of Care (Policy Focus Group)
RIVM	Dutch National Institute for Public Health and the Environment
RO	Romania
SE	Sweden
SI	Slovenia
SID	Systematic Indicator Development Method
SILC	European Union Statistics on Income and Living Conditions
SK	Slovakia

SPC	Social Protection Committee (SPC)
UCLA	University of California, Los Angeles
UK	United Kingdom
WHO	World Health Organisation
WHR	World Health Report

CHAPTER 1

BACKGROUND AND CONTEXT

“Not everything that can be counted counts, and not everything that counts can be counted.”

Albert Einstein

CHAPTER 1

BACKGROUND AND CONTEXT

1.1 Introduction

The 2008 financial crisis changed the world as we knew it. Health care was not spared. Consequently, the performance of health systems was put under the scrutiny of governments and international agencies, where health systems have since been constrained to function within a more restrictive environment, make do with less resources whilst dealing with increased expectations and greater efficiencies.

Tools were subsequently developed to measure how health systems perform and function, where the collection, analysis and elucidation of performance data has had a major impact upon improving health systems and enhancing health care performance (Smith, *et al.*, (2009a). Moreover, over the last decade, the development of health system performance assessment (HSPA) frameworks has significantly contributed towards the advancement of performance assessment and improvement at system and national level.

Although several countries and geo-political blocks have developed their own health system performance models, the methodology employed to develop these HSPA frameworks has not been well researched, with little standardisation between different models. Also, whilst health system improvement is considered a priority, the effect of performance assessment upon steering the course of health systems through policy development is less clear. There is little evidence to suggest that HSAs have a direct, or indeed, subsidiary impact or influence upon the development and shaping of policies in the health sector.

Research into the methodology utilised for the development of HSPA models and the results that are derived from this process as well as the relationship between HSPA and policy making are the rationale for this research.

1.2 Background and rational for study

This section provides the context and rationale for this study, touching upon the current debate on HSPA development and its impact upon policy making. It also introduces Malta as the focus for this research.

1.2.1 Methodological development of HSPA frameworks

In an attempt to continually improve health systems and the various facets within a health system, measurement of its performance became a crucial and determining component for the governance of health care services (World Health Organisation, 2000). The art and science of performance measurement and hence management, developed significantly over the last few decades and many modern health systems have now introduced robust and rigorous methods and tools for collecting and analysing the required data to be able to measure performance of the system as a whole, as well as its component parts (Gerring, et al., 2013). Health system performance assessment is one such tool, used to assess the performance of a health system at national or system level, as opposed to the performance tools at organisational or institutional level. The World Health Report produced by the World Health Organisation in 2000 heralded, for the first time, the concept of assessing and comparing the performance of its member states (World Health Organisation, 2010); (Murray & Evans, 2003). The Tallinn Ministerial conference in 2008 and the resulting Tallinn Charter (World Health Organisation, Regional Office for Europe, 2008) launched HSPA at a European level and marked the start of performance assessment in Europe.

Nevertheless, despite the promulgation of HSPA frameworks since the Tallinn Charter, the methodological development of these frameworks has not been well documented or researched (Braithwaite, et al., 2017). Whilst each country that developed HSPA provided a descriptive account of the methodology used, the critical thinking and evolutionary or developmental process leading to their HSPA frameworks is rarely elaborated upon, assuming perhaps that each country has its own ‘way’ of doing things (Carinci, et al., 2015). Moreover, a standardised approach to HSPA development has, to date, not been advocated (Expert Panel On Effective Ways Of Investing In Health, 2014). This is, in a way, similar to the natural history of Health Technology Assessments (HTA), which started off as disparate attempts at assessing

new technology, only to develop into a new scientific and standardised approach adopted across the EU (Garrido, et al., 2008). Whether HSPA will follow the same fate is yet to be seen but a greater understanding and further research into the methodologies used for HSPA development are certainly required (Perić, Hofmarcher-Holzhacker & Simon (2017). One of the main facets of this research is to critically appraise the methodological development of HSPA models and in so doing, apply this knowledge to the production of Malta's first HSPA.

1.2.2 Malta

Like some other European countries, Malta had yet to develop its first national Health System Performance Assessment (HSPA) framework. Following the launch of its National Health System Strategy (NHSS), the need for a national HSPA framework became apparent and the author was commissioned, together with other experts to develop and test such a framework. This was the first time Malta had the opportunity to assess its health system using a scientific approach and this study will outline the steps taken to develop this assessment. Malta always had (and still has) a problem with measurement, where senior health service managers did not know precisely how the health services they manage are performing, especially at system or national level. As a senior member of Malta's public health service, the author always struggled to gain insight into Malta's health system performance, dealing with significant resistance and reticence to measure its performance. This research offered a unique possibility to break the mould.

Moreover, it is known that the capacity and propensity for developing HSPA frameworks is much more limited and challenging for small countries and hence small health systems such as Malta (Azzopardi Muscat & Camilleri, 2018); (Azzopardi Muscat, et al., 2016). For this reason, Malta was chosen as a model for HSPA development in a small state since the methods employed for a small state may be different to other larger, perhaps more developed and mature health systems (Grech & Lai, 2014). Furthermore, Malta is also ideally placed for this research since, although small, it encapsulates all the aspects of a complete health system which can be more easily assessed and influenced by the findings of this study. Part of this thesis outlines the methodological process undertaken by the researcher in achieving this

objective, as well as the results that followed, including the theoretical underpinnings that guided this process.

1.2.3 HSPA and its impact on policy

The latter part of the study follows from the previous sections in that it enquires into the usefulness of HSPA once these are developed and implemented, in terms of its influence on changing policy and instigating reform. Every health system undergoes its unique evolutionary process. Health systems take decades (if not centuries) in the making and are influenced by numerous externally driven and internally motivated factors (Figueras, et al., 2004). Cultural, politic-socio-economic and structural factors determine the physiognomy of a health system over time and in turn, these factors have a direct and indirect impact upon policy development and change within a health system. Health policy is shaped by both internal and external variables which in turn have a significant impact upon how a health system is moulded. It is determined through the influence of health professionals, the role of unions and other professional groupings, patient advocacy groups, health related industries especially those related to pharmaceuticals and food, as well as the political agenda. These factors shape health policy at the local, national and international level and furthermore determine the speed and extent of change and reform. Some health systems are more susceptible to policy changes whilst others are slow to react to the needs of the population. Many models of policy development have been promulgated (Warner & Bjarkman, 2011), (Walt, et al., 2008), and these shall be discussed as a preamble to this part of this research. Many of these models have been extracted from other policy sectors and adapted to health systems and health care, without necessarily being empirically tested (Béland & Howlett, 2016).

The literature provides ample empirical evidence on the link between performance assessment and measurement and improvement of health systems and health care (Loeb, 2004); (Smith, 2005); (Smith, et al., 2009a). The advent of performance measures and the development of performance indicators in health care has been one of the singular most important tools for improving the performance of health care in many areas of clinical practise (Fitzpatrick, 2009). Various countries have integrated performance measurement into service frameworks, with clear targets and deliverables. This was the case, for instance, in England, where in 2001 the

Department of Health for England announced the National Service Framework (NSF) programme, which was a programme meant to transform the way services are delivered for patients by the National Health. Moreover, there is evidence to show that, depending upon their agendas and priorities, health care organisations can influence the performance of the health system as a whole (Hauck, et al., 2003). This, in itself, is not a negative aspect, unless there is lack of alignment between the objectives of the health system with that of its constituent parts.

However, there seems to be little experience and hence evidence in the literature on how performance assessment frameworks impact health policy. Smith and Busse (2009) examine how health policies and target setting may, and indeed do, influence the manner in which performance measurement is viewed and structured. This is evidently obvious since in order to create and maintain a robust health system performance assessment framework, financial, human and technological resources need to be dedicated for this venture and hence governments and health care organisations need to commit such resources to continually measure their performance. Conversely, the contrary is not evident, in that performance assessment can and should influence policy development. Veillard *et al.* (2010) opine that whilst international comparisons of health systems are useful for governments to adjust their health policies, performance data still needs to be integrated into the policy-making process. He cites a few non-European examples as exceptions, one of which is from the Ontario Ministry of Health and Long-Term Care in Canada where there is evidence to show that they make systematic use of performance information and its flow through the decision-making process.

Performance assessment should be intricately linked to providing the evidence to generate change and reform. Mannion and Goddard (2001) found that, although Scotland had a very well developed performance monitoring system in place, there is little to show for how this impacted upon changes in the health system. Similarly, for the Dutch, successive publications of their biennial Dutch Health Care Performance Report have had minimal impact upon policy formulation and priority setting at national level (Westert, *et al.*, 2010).

At the turn of the millennium, the World Health Organisation has already realised that the link between policy development and performance assessment frameworks was weak and consequently launched the Enhancing Health Systems Performance Initiative (EHSPI) as a means to improve and manage performance supported with relevant policies (World Health Organisation, 2001). The aim was for the EHSPI to feed into the national policy debate, thereby linking evidence to priority objectives and subsequent actions. WHO hoped that, at a global level, EHSPI would enhance the movement towards more robust evidence-base policy making.

The latter part of the study explores the underlying drivers of health policy and whether policy development is predominantly evidence-based or whether other more utilitarian factors have a greater influence upon policy formulation. For the purposes of this thesis, the evidence base is postulated to be derived from health system performance data, including indicators embedded within purposefully created HSPA frameworks.

1.2.4 Phases of study

This study therefore focuses upon the development of a national health system performance assessment (HSPA) framework for Malta and considers the impact such frameworks have upon policy development. The study consists of three phases:

Phase I Document Analysis

Phase II Development of Malta's HSPA

Phase III Relationship between performance assessment and policy making

These will be explained further in Chapter 3.

1.3 Historical and policy context of Malta

Malta has a very long and distinguished history of health care delivery, spanning several centuries. The arrival in Malta of the Hospitallers Order of the Knights of St John placed Malta on the international medical map. This order was renowned for its highest standards of care and innovative medical practices during this period (Savona-Ventura, 1997), (Savona-Ventura, 2004). The establishment of the Sacra Infermeria

in 1574 attracted many noble families from Europe for care and rehabilitation. In 1676, one of the oldest medical schools in the world was established by the Knights, heralding a new era of medical education, training, and best practices. Malta's health care system continued to strengthen during the English occupation between 1798 and 1964, especially in the post-World War II era of medical and technological advances.

In its post-independence years (post-1964), Malta experienced a few turbulent but significant events during a prolonged 10-year doctors' strike which transformed the Maltese health care landscape completely (Azzopardi Muscat & Dixon (1999). Paradoxically, several new developments and primary and secondary care services arose from the turmoil of that period, which, coupled with the economic growth in the late eighties and early nineties, saw a considerable expansion of services and a revival of medical training and education (Pincock, (2005). Accession to the European Union (EU) in 2004 provided further impetus for medical developments, especially in public health and pharmaceuticals, cumulating in the opening of Malta's new main acute hospital in 2007, which, due to its contextual significance for Malta, impacted significantly upon the health system and its performance in the subsequent years (Azzopardi Muscat, *et al.*, 2016).

The Maltese Health System is unique in that it is a small but overly complete health care system. Although small in size relative to other health systems, it serves the needs of an entire nation and its population. It encompasses most, if not all, components of a modern health system, from primary, secondary and tertiary care, to public health services and health promotion/education, to community services and rehabilitation and mental health services (Azzopardi Muscat & Dixon, 1999). Being an island state, although easily affected by outside influences in today's modern age of communication and social media, external influences on the island in the past were less apparent and so improvements or the lack thereof of health care services and health outcomes in Malta in the past were mainly attributable to internal factors. This unique 'laboratory' setting presents an ideal opportunity to study certain characteristics of a health system and how this system performed over time and in comparison, with other health systems. On the other hand, since the different elements of the Maltese health system are similar to any other health system abroad, the findings

from this research may be applicable, to a certain extent, to other health systems, generating new knowledge and insight into how a health system work and performs.

1.4 Research questions

The research questions to be addressed in this study are based upon the two facets discussed earlier, namely the developmental process of HSPA and the relationship between HSPA and policy making. The principal research questions are outlined below and presented in more detail in Chapter 3.

1. Which is the most appropriate method for developing a health system performance assessment model for Malta?

This explores the methods that can be employed for its development and implementation, elucidation of which set of national performance indicators would be the most appropriate for Malta's first HSPA framework and an assessment on Malta's health system.

2. What role, if any, do national health system performance assessment frameworks play in the development of national health policy?

This question examines the impact such frameworks have on policy development at a national level and how HSPA can be better utilised for policy making and service improvement.

1.5 Aims and objectives

The aim and objectives comprise two main elements, the first dealing with the development of a HSPA Framework for Malta and the second to study the relationship between HSPA and policy making.

The overall aim of the study is to develop a national health system performance assessment framework for Malta and to examine the impact such frameworks have upon policy development.

The objectives are derived from this aim and mirror the 3 phases of the study.

Phase I - Document Analysis

The purpose of the document analysis is two-fold; first to understand the methodologies employed for the development of health system performance assessment models and secondly to elicit documentary and historical evidence on the impact of performance assessment on policy development.

Phase II - Malta Health System Performance Assessment Framework

The objectives of this phase centre on the development of Malta's first ever HSPA, including the elucidation of a set of key national performance indicators for the Maltese health system and the presentation of the results of Malta's first performance assessment of its health system.

Phase III - Policy Development in relation to performance frameworks

This third phase investigates the relationship between the introduction and implementation of national health system performance assessment frameworks and national policy making and reform. It continues to evaluate whether evidence, in the form of HSPA, has a bearing upon the development and adoption of policies.

These objectives are further outlined in Chapter 3.

1.6 Contribution to research and policy development

Each of the above-mentioned objectives aim to cover a gap in the current academic research, as well as address specific policy imperatives. The development of a national performance assessment framework for Malta not only laid the groundwork for future performance measurement in Malta but also contributed to the body of European and international knowledge on the appropriate methodological process used for this type of endeavour. Such a methodology could be compared and used to inform the development of other performance frameworks, especially for small states, and is also particularly apt at this juncture due to the increasing interest within EU circles to create a Europe-wide, standardised performance assessment framework and also to assist small countries in developing their own HSPA. Moreover, the results emanating from measuring the indicators within the framework are comparable and useful for

benchmarking with other countries, opening the path for Malta to partake in numerous international comparative studies in the future.

Although significant research has been carried out on the link between performance measurement and service improvement, the same could not be said of the link with policy development. This study provides a unique insight into the relationship between national performance frameworks and the development of policy and implementation of reforms at national level. This association is important to consolidate and expand the use of performance assessment frameworks whilst ensuring that policy making is grounded increasingly more in evidence rather than in other extraneous factors.

1.7 Scope and structure of the thesis

This thesis focuses upon the methodology for the development and implementation of national HSPA frameworks and the impact such frameworks have upon policy development.

The next chapter, **Chapter 2** provides a conceptual and analytical framework for the thesis, together with a literature review while **Chapter 3** outlines the overall aims, research questions and methodologies employed for the study.

The first phase of this research, outlined in **Chapter 4**, consists of a document analysis to explore the various methodologies and experiences in developing HSPA models internationally. This review also began to investigate the relationship between performance assessment and policy development.

The second phase of the thesis (**Chapter 5**) outlines the development of a national HSPA framework for Malta. This is the first time that a formal model for performance measurement was produced at a national level in Malta. The research delineates the methodological process undertaken to develop this framework whilst comparing with similar developments abroad. It then creates a set of system wide performance indicators for Malta and outlines the results generated by this process.

There is strong evidence to suggest that the collection, analysis and elucidation of health performance data has a major impact upon improving health systems and health care performance (Smith, et al., 2009a). However, the link or relationship between HSPA Frameworks and policy development and formulation, as well as policy change is less clear. There is little evidence to suggest that HSPA frameworks have a direct, or indeed, subsidiary impact or influence upon the development and shaping of policies in the health sector.

The third phase of this study, outlined in **Chapter 6**, examines this hypothesis by building on the findings of the document analysis in continuing to explore the relationship, if any, between HSPA frameworks and health policy development in the European region and examines whether such frameworks have an impact or influence upon policy development and change in several European countries.

Due to the qualitative nature of Chapters 4 and 6, the results and discussion are presented together. However, the author also discusses the results of all three stages of the research in a holistic and integrative manner in **Chapter 7**, whilst the conclusions determined by this study, as well as various recommendations are presented in **Chapter 8**.

CHAPTER 2

LITERATURE REVIEW: A CONCEPTUAL AND ANALYTICAL FRAMEWORK

“Without data, you’re just another person with an opinion.”

W. Edwards Deming

CHAPTER 2

LITERATURE REVIEW: A CONCEPTUAL AND ANALYTICAL FRAMEWORK

2.1 Introduction

This chapter outlines the historical and policy development of performance frameworks internationally and maps out their progress in different countries. It considers current health performance frameworks, their origin and the process utilised to develop such frameworks. The author will assess their applicability or otherwise for Malta as a model for the development of a similar national framework for this country. The second part of the chapter draws upon the process of policy development in relation to HSPA and reflects on how it informs policy making and reform.

2.2 Health systems

There is no doubt that, throughout the centuries, health systems have contributed enormously towards improving the health of populations, where health systems have been attributed to increasing life expectancy and quality of life, mostly due to technological advances in medicine and better health care practices (Nolte & McKee, 2004). However, it was not until the seminal, if not controversial, work of the World Health Organisation (WHO) at the turn of the millennium that a comprehensive definition of a health system was proposed in its far-reaching World Health Report. This report defined the health system as ‘... *all the activities whose primary purpose is to promote, restore or maintain health*’. Operationally, this definition is further dissected into comprising ‘*the resources, actors and institutions related to the financing, regulation and provision of health actions,*’ where health actions are ‘*all activities whose primary purpose is to promote, restore or maintain health*’ (World Health Organisation, 2000, p. 5).

Most health systems share a common genesis in that they serve to generate health within and improve the health of a population by ensuring equitable access, guaranteeing an adequate standard of care and supporting an efficient and sustainable delivery of health care (McPake & Mills, 2000). WHO summarises these attributes in

a succinct manner by stating that health systems should always strive towards three fundamental goals – *‘improving health, enhancing responsiveness to the expectations of the population, and assuring fairness of financial contribution’* (Murray & Frenk, 2001). In summary, health systems are in the business of continually improving the health outcomes of the population it serves and all health system performance measures ultimately measure this final objective or goal.

Due to its inclusive nature, the boundaries of a health system are difficult to define. A health system certainly incorporates all ‘health care’ activities but also includes ‘public health’ activities, as well as formal and informal personal care and voluntary care (Canadian Institute for Health Information, 2013). However, since health is determined by many interdependent factors, of which health care is only one, a multi-dimensional approach to health is necessary to understand the complexity of health systems (Arah, et al., 2006). This concept was first introduced by Lalonde in his ‘White Paper’ in Canada in 1974 (Lalonde, 1974), which gave way to many other publications on the subject (Evans & Stoddart, 1990), leading eventually to the ever expanding research on social determinants of health (Marmot & Wilkinson, 2005).

2.2.1 Measuring the performance of health systems

Measurement of performance of health systems has been around for several years (McIntyre, et al., 2001). Initially the performance of health care services and systems was measured through ad hoc, individual and non-related measures and indicators. These pertained, in the main, to general population health, responsiveness of the system to the health care needs of the population, throughput (production) indicators and financial parameters. Other important performance domains were introduced during the eighties and nineties, mostly relating to quality of care, health equity, transparency and accountability, governance and cost-effectiveness or value for money. Quality-adjusted or healthy life measures were later introduced as the focus shifted towards a healthier life rather than a longer life (Kelley & Hurst, 2006).

The breakthrough in health system performance assessment was spurred by the publication of WHO’s World Health report (World Health Organisation, 2010) in 2000, wherein WHO advocated the use of health system performance assessment and measurement as a key feature in the governance of health systems. For the first time,

the performance of different health systems was measured and compared in a landmark health system performance assessment (Murray & Evans, 2003). WHO defined health system performance assessment as ‘*a country-specific process of monitoring, evaluating, communicating and reviewing the achievement of high-level health system goals based on health system strategies*’ (World Health Organization, 2012, p. ii).

At a European level, the Tallinn Ministerial conference in 2008 and the resulting Tallinn Charter (World Health Organisation, Regional Office for Europe, 2008) committed EU countries, for the first time, albeit rather late in the day, to produce measurable results and to promote transparency and accountability for their health systems. This marked the start of measuring health system performance in Europe, after which several countries took up the challenge (Van Den Berg, et al., 2014).

2.2.2 Health system performance assessment frameworks

Up until the 1990s, although the use of performance indicators was widespread, these indicators were not captured within a conceptual model or framework. One of the first attempts to develop a performance framework at local level was that by van der Bij and Vissers in the Netherlands in 1999 (van der Bij & Vissers, 1999). The seminal work of the WHO, the Organisation for Economic Co-operation and Development (OECD) and the Commonwealth Fund in the United States (Murray & Frenk, 2000), (Arah, et al., 2006), (Commonwealth Fund, Commission on a High Performance Health System, USA, 2006) laid the basis for further frameworks to be developed throughout the world (Department of Health, UK, 1999a), (Canadian Institute for Health Information, 2000), (Queensland Health, National Health Performance Committee, 2001), (Institute of Medicine, 2001a), (Institute of Medicine, 2001b), (Institute of Medicine, 2006).

No explicit or direct definition of a performance assessment framework is evident from the literature. The WHO, through its World Health Report in 2000, describes HSPA as a process carried out at country level which allows the health system to be assessed holistically; a ‘health check’, if you wish, of the entire health system (World Health Organisation, 2000). The literature offers several references on what a HSPA framework is, how it works and its purpose, but no clear single definition is advocated.

The closest to a definition that the literature provides is that promulgated by the Department of Health in England, as that of a framework which *'provides a structure and benchmarks for organisations to use to assess its performance. It covers fair access to services, effective delivery of healthcare, efficiency and the patient and carer experience'* (Department of Health, UK, 2001, p. 6). The World Bank states that a health system framework is a generic conceptual tool used to describe a health system, termed as follows: *'It defines, describes and explains the health system, its objectives, structural and organizational elements, function and processes'* (Shakarishvili, et al., 2009, p. 4). A HSPA framework is a conceptual model that incorporates the most relevant dimensions that best describe the goals of the health system it promulgates. It depicts the inter-relationships that exist between the different dimensions of a health system and the goals of the health system (Kelley & Hurst, 2006) and therefore a HSPA framework permeates from the strategic objectives of the health system it is supposed to measure.

These frameworks encompass a similar array of indicators organised into different health domains or dimensions, pertaining to effectiveness, quality and safety, responsiveness, access, equity, efficiency, financial mechanisms, determinants of health and more (Canadian Institute for Health Information, 2013). A performance assessment framework typically groups these domains under health inputs, health outputs, health outcomes and health impact, outlining the journey of a health system in providing and improving health.

Within each domain, performance indicators that are relevant to the health system are extracted and so a HSPA framework gives structure and formality to the measurement of the performance of the various components of a health system. A HSPA framework also delineates the method of indicator selection, the data sources that are used for the indicators chosen, its analysis and how results are communicated to stakeholders (World Health Organisation, 2010).

There is no universal template or methodology of developing a HSPA framework. Although WHO believes that each country should devise its own methodological process which is suitable for its circumstances and context, there are a few key principles which should be respected.

These are:

- HSPA, as the name implies, should focus upon health systems as a whole and not on the components parts of a health system.
- Outcome measures are better placed to mirror performance.
- HSPA should form part of a regular process to measure performance and devise policy as implied within the policy cycle of a HSPA.
- Although each country or health system should develop its own HSPA, its structure and content should be comparable with that of other countries and health systems.

2.2.3 Indicators, the crux of performance assessment

It is important to understand the key role of indicators in measuring performance. The Joint Commission on Accreditation on Healthcare Organisations defined a performance indicator (PI) as a '*measurement tool used to monitor and evaluate the quality of important governance, management, clinical and support functions*' (Joint Commission on Accreditation of Healthcare Organisations, 1990, p. 7). The Health Information and Quality Authority of Ireland sees key performance indicators as measures of performance that are used by organisations to measure how well they are performing against targets or expectations. KPIs measure performance by showing trends to demonstrate that improvements are being made over time (Irish Health Information and Quality Authority, 2013). Performance indicators can be regarded as tools in the hands of policy makers, scientists and health care providers to assess where they are, how they are performing at that point in time or over a period of time (looking at trends) and the direction they are taking. Most of the work around indicators initially revolved around safety and quality of health care provision. Eventually this was expanded to include every facet and aspect of health care, public health and the wider health outcomes. However, Perera, Dowell and Crampton (2012, p. 49) warn that indicators are not always '*axiomatically good*' since their application in the field depends upon the contextual background in which they are developed. Developing indicators out of context is flawed if not dangerous since they may provide for incorrect and misleading data and information. Perera, Dowell and Crampton. (2012) continue to explain that credibility of a performance system would suffer if indicators

are not developed and chosen appropriately for a defined purpose and if the data is misinterpreted. This is especially relevant when PIs are utilised to measure performance by comparing results against standards or with other similar organisations.

2.3 Search Method: Analysis of current HSPA frameworks

The purpose of this first part of the chapter is to provide an analytical overview of the more salient studies and research that has been carried out in the area of performance assessment frameworks at health system level, starting with some broad definitions and followed by a historical overview in order to contextualise and understand the development of HSPA Frameworks. This is followed by describing and comparing the different methodologies used in the drawing up of HSPA Frameworks. Lastly, an analytical review was used to inform the methodological process towards the development of Malta's first performance assessment framework, linking this to the research objectives and questions for the first phase of this dissertation.

2.3.1 Sources of information used in this study

The key words used as search terms for this part of the literature review were 'health system' (incorporating 'health care' where appropriate), 'performance assessment and/or measurement,' 'framework' and 'performance indicators.' A normal literature search method was employed since the aim was not to produce a systematic review using a strict methodology, such as Prisma.

The electronic databases of Medline, Embase and Web of Science were first used to derive a representation of the width and breadth required for this research. Medline was used to derive the main medical sources of information whilst Embase widened the search to include other aspects of human medicine and related biomedical research. Web of Science was sought to include articles extraneous to the typical medical fields and, in fact, the number of hits derived from the Web of Science exceeded the other two databases by far. The year 2000 was chosen as the cut-off point since this seemed to be the period where performance assessment frameworks started to gain importance and relevance in the academic literature, with the exception of seminal articles. Only English language peer-reviewed articles were sought, except in a few exceptions.

Depending upon the database used, single term searches produced hits in their hundreds or thousands in certain cases. For this reason, combinations of two or, in some cases, three and even four keywords were necessary to narrow down the number of hits to more manageable and relevant numbers. These searches produced numerous hits but many were of dubious relevance to the topics under review, especially in relation to the development and use of performance assessment/measurement frameworks and health system performance. Many hits produced articles on either specific clinical areas (and were not relevant to system wide performance assessment), on hospital based performance studies or on performance measurement initiatives linked to service improvement but not linked to a specific performance assessment framework.

Tables 2.1 – 2.4 provide a summary of the search results. The figures in brackets are the number of articles that were deemed relevant for this research and were downloaded and reviewed in detail. The figures in the tables still include duplicates and the exercise of removing duplicates was undertaken after the more relevant articles were downloaded and reviewed. In fact, the author noted that a saturation for new articles was reached after reviewing all three databases.

Table 2.1: References from two-word combinations (just Medline)

	Performance Assessment Framework	Health System	Performance Assessment	Performance Measurement	Performance Indicators	Framework
Performance Assessment Framework	12 (1)	1 (1)	N/A	N/A	2 (2)	N/A
Health System	1 (1)	39821	24 (7)	39 (10)	58 (8)	952
Performance Assessment	N/A	24 (7)	1181	N/A	24 (5)	82 (9)
Performance Measurement	N/A	39 (10)	N/A	847	40 (8)	84 (20)
Performance Indicators	2 (2)	58 (8)	24 (5)	40 (8)	1434	106 (25)
Framework	N/A	952	82 (9)	84(20)	106 (25)	105018

Table 2.2: References from two-word combinations (just Embase)

	Performance Assessment Framework	Health System	Performance Assessment	Performance Measurement	Performance Indicators	Framework
Performance Assessment Framework	18 (6)	2 (2)	N/A	N/A	2 (2)	N/A
Health System	2(2)	63267	45 (11)	123 (14)	85 (16)	N/A
Performance Assessment	N/A	45 (11)	1820	N/A	41 (11)	126 (17)
Performance Measurement	N/A	123 (14)	N/A	4019	147 (34)	282 (31)
Performance Indicators	2 (2)	85 (16)	41 (11)	147 (34)	2200	171 (34)
Framework	N/A	N/A	126 (17)	282 (31)	171 (34)	147181

Table 2.3: References from two-word combinations (just Web of Science)

	Performance Assessment Framework	Health System	Performance Assessment	Performance Measurement	Performance Indicators	Framework
Performance Assessment Framework	5099	331	N/A	N/A	52 (8)	N/A
Health System	331	146722	2580	1945	1385	N/A
Performance Assessment	N/A	2580	83964	N/A	4868	5099
Performance Measurement	N/A	1945	N/A	154,263	4061	5536
Performance Indicators	52 (8)	1385	4868	4061	33512	2384
Framework	N/A	N/A	5099	5536	2384	604521

Since in some instances, too many hits were registered with two-word combinations, three keyword combinations were also examined. The results are presented below.

Table 2.4: References derived from three and four word combinations (Medline, Embase and Web of Science)

	Medline	Embase	Web of Science
Perf. Ass.+Framework+Health System	1 (1)	7 (4)	215 (17)
Perf.Meas.+Framework+Health System	13 (2)	25 (16)	188 (23)
Perf.Meas.+Framework+Health (Care)	69 (16)	169 (38)	/
Perf. Ass.+Framework+Health (Care)	26 (8)	48 (13)	/
Perf.Ass+Framework+Perf. Ind.	11 (5)	11 (5)	77 (7)
Perf.Ind.+Framework+Health System	13 (11)	13 (11)	203
PAF+Perf.Ind.+Perf.Meas.+ Health System	0	0	19 (4)

In addition to the above, snowballing techniques were also used where the author extracted several references from suitable articles. Much documentation was also found in the grey literature since this subject was not always subject to empirical research and many governments and organisations carried out studies and published reports which were not submitted to peer-reviewed journals for publication.

2.4 Historic development of performance assessment frameworks

Indicators have been used extensively for many decades, starting from the quality movement in the 70s and 80s to the emphasis on efficiency and financial sustainability in the crisis years of the 1980s and 1990s (van der Bij & Vissers, 1999). However, despite the promulgation of various types and forms of performance indicators, up to the late 1990s, these were not yet mapped within a formal, structured conceptual framework.

2.4.1 Early national frameworks

In Europe, Scotland was amongst the first to develop and publicise the use of clinical indicators. In 1992, the Clinical Outcomes Working Group was set up with a mandate to create outcome clinical indicators for Scotland. The first set of clinical indicators was first produced in 1993 and since then, an indicators report was published on an annual basis (NHS Quality Improvement Scotland, 2005). However, up to that point, the focus was channelled into the development of the indicators themselves with little interest in mapping these indicators into a framework that could be used for the overall improvement in performance (Kendrick, et al., 1999).

In 1997, the Department of Health in England published a white paper ‘The new NHS: Modern, Dependable’ (Department of Health, UK, 1997), launching the Government’s new vision for the NHS at the time. This document outlined, for the first time, a new national Performance Assessment Framework as the main instrument for securing management control in the NHS. This was deemed necessary due to the changes envisaged in the white paper, *in order* to equip Health Authorities, Primary Care Groups and NHS Trusts to discharge their new roles and responsibilities. This led to a realisation that if the population’s health needs could be charted through an umbrella performance framework, this would be equally applicable to a Health Authority, a Primary Care Group, or an NHS Trust. Indeed, this is the first time that clear incentives and sanctions were introduced at a national or system level to improve the performance of these organisations.

The new millennium lent itself to a plethora of new performance concepts, such as that promulgated by the UK Treasury in its document – ‘Choosing the Right Fabric; A Framework for Performance Information’ (HM Treasury, 2000). Using the health sector as a guide, the proponents of this document outlined the basic criteria for determining the appropriate framework for performance management and monitoring. Whilst the emphasis at the time was still one of compliance to targets and external monitoring, the methodology chosen for establishing the correct criteria for performance measures was robust and served the test of time, as we shall see when discussing the criteria for choosing performance indicators. This document wittingly chose to use the acronym of FABRIC to describe the properties of a performance information system. These were – Focused, Appropriate, Balanced, Robust,

Integrated and Cost Effective, whilst the criteria for establishing performance measures were defined as requiring to be relevant, to avoid perverse incentives, attributable, well-defined, timely and reliable – all criteria used today in developing performance indicators within a HSPA framework.

Canada was also amongst the first to develop their own HSPA framework, where the Canadian Institute for Health Information (CIHI) was tasked with creating a framework for the Canadian provinces in 2000. They produced a report known as the Canadian Health Information Roadmap Initiative Indicators Framework (Canadian Institute for Health Information, 2000), with the aim of assessing, for the first time, the health of the Canadian population and to gauge how their health care system performs. This was a population-based approach assessing the health status of the population and was one of the first frameworks to explicitly map performance indicators with specific domains such as acceptability, efficiency and effectiveness.

In the United States, work on a national health improvement framework started in 2001 by the Institute of Medicine (IOM) (Institute of Medicine, 2001a), where they proposed six performance domains, namely safety, effectiveness, patient-centeredness, timeliness, efficiency and equity. The IOM argued that improvements in these six key areas would lead to better patient outcomes. The IOM was also responsible in drawing up the National Health Care Quality Report (Institute of Medicine, 2001b) and in later building upon its initial work in 2001 by suggesting a new methodology to measure and improve health systems improvement (Institute of Medicine, 2006). Paradoxically however, to date, after 14 years of developing robust performance assessments frameworks and a myriad of performance indicators that are utilised across the country, there is, as yet, no nationally agreed framework to which all states and authorities subscribe to. This is perhaps reflective of the federal and decentralised political model of the country, as well the dominance of the private sector in health care provision and funding. This situation also begs the question – is a HSPA framework really required at national level?

The US model is proving to be an exception with time since most Western and modern health systems have now developed their own national HSPA frameworks. This anachronistic situation was still present in 2006 when the Commonwealth Fund

created a ‘Commission on the High Performance Health System (Commonwealth Fund, Commission on a High Performance Health System, USA, 2006) to spearhead the development of a ‘framework for a high performance system’. This, after the increasing realisation that, despite spending more on health care than any other country, the USA still lagged in key performance areas and more worryingly, did not experience the improvements in performance that other modern societies were experiencing during that decade.

The Australian performance system (Queensland Health, National Health Performance Committee, 2001) was based on the health determinants model, utilising three tiers – health status and outcomes, determinants of health and health system performance. The last tier possesses the usual set of dimensions such as effectiveness, efficiency, responsiveness and accessibility, amongst others. As for the Canadian model, the Australian HSPA framework was developed with the aim of answering the same basic questions on health status of the population and the health system performance (Duckett & Ward, 2008).

In 2003, Arah *et al.* (2003) from the Netherlands produced a succinct yet profound analysis on the various performance frameworks developed up to 2003, namely those mentioned above. This seminal work was pioneering since it later paved the way for their ground-breaking work of OECD in developing its now widely used HSPA framework, as well as define the main precepts and criteria for developing the conceptual models behind many frameworks that exist today. This work was later complemented by their efforts in developing a HSPA framework for the Netherlands in 2004 (Ten Asbroek, et al., 2004).

Table 2.5 summarises the main features of the early national frameworks of the USA, UK, Canada and Australia prior to 2003.

Table 2.5: Early national frameworks of the USA, UK, Canada and Australia

	USA	UK	Canada	Australia
Institutional input	Institute of Medicine	Department of Health	Canadian Institute for Health Information	National Health Performance Committee
Rationale behind development of PAF	Service improvement; provide consumer information in competing market; regulation.	Securing management control in the NHS; regulation and monitoring in new decentralised model; accountability and financial incentives.	Quality driven and establishment of benchmarks / standards across provinces.	Performance reporting; measurement of health status and health system performance.
Type of framework	Weak national framework; dependent upon purchaser and provider needs; emphasises population health and patient oriented performance reporting.	Coherent national framework; increasing number of indicators and targets; domain local use of PIs being entrenched.	Integrated national framework applied across provinces; based on both population health and health system performance measures.	Evaluation of inputs, outputs, and outcomes measures linked to health system performance, health determinants and health.
Accountability focus	Performance measures and indicators made available to providers, funders and consumers; market driven performance measures.	Quality and clinical governance; performance reporting for funding and to reach clinical & operational targets; production of 'league' tables.	Comparability / dissemination of information; timely decision making.	Professional focus; implementation and setting of standards and benchmarking practices); financial monitoring.

Source: Adapted by author from Arah *et al.* (2003)

2.4.2 International frameworks

Whilst, at the turn of the millennium, the UK, USA, Australia and Canada led the way for the development of country specific frameworks, it was the work of OECD and WHO that really placed HSPA frameworks on the international map. This work was then followed, many years later, by the European Commission (CION). This section outlines the development of these international frameworks. The catalyst for these new developments was the increasing concern on the sustainability of health care, as well as the drive to improve quality of care and health outcomes. Jee and Or (1999) were commissioned by OECD to draw up a paper which served as the basis for OECD's work in this area for the years to follow. This was the first time that health outcomes, using the Donabedian model (Donabedian, 1980a), were linked to health policy development.

2.4.2.1 World Health Organisation

In 2000, WHO launched its first World Health Report (World Health Organisation, 2000), which had a major impact on performance assessment for two main reasons. To begin with, it was the first time that an international health organisation developed and measured performance indicators within a performance framework and secondly it was the first attempt at classifying the performance of WHO member states using a performance metric (Murray & Frenk, 2000). Whilst the former development was welcomed and hailed as a breakthrough, the latter was mired in controversy and lacked consensus, since it was argued that producing a performance league of countries was neither scientifically sound, nor did it reflect reality on the ground (Navarro, 2000).

In this report, WHO (World Health Organisation, 2000, p. xii) defined the boundaries of health systems and created a conceptual framework *'to help Member States measure their own performance, understand the factors that contribute to it, improve it, and respond better to the needs and expectations of the people they serve and represent'* and thus allow individual member states to mould their own national HSPA framework from this WHO conceptual model. The WHO framework was built on the premise of a health system whose primary objective is the improvement of health. It therefore put forward, for the first time, the belief that the health system of a country or region should be planned for the attainment of better health, through a number of

dimensions. In this innovative report, WHO subscribed to determining the health status of a population through population based, efficiency and effectiveness measures. Contrary to the OECD work carried out a few years later, it did not focus upon quality indicators per se but supplants quality with overall indicators of effectiveness and performance. However, it created a new measure of overall population health, something of a '*sum of all measures of burden of disease*,' or more precisely the numbers of disability-adjusted life years (DALYs) lost. This summative type indicator paved the way for many other similar indicators that now attempt to measure population health or lack of health thereof.

2.4.2.2 OECD

In 2006, OECD commissioned a number of expert groups to draw up various performance assessment frameworks. The work by Arah and his colleagues in the Netherlands (Arah, et al., 2006) led the process which took some years to complete. The impetus for this work arose from the increasing burden placed upon health systems to deliver with fewer resources, in a climate of increasing expectations, ageing populations and advances in medical technologies. This prompted many OECD member states to develop performance measurement and management frameworks that capture equity, quality and efficiency goals within their health systems (Hurst, 2000), (Hurst & Jee-Hughes, 2001), (Hurst, 2002).

OECD's Health Care Quality Indicator (HCQI) Project was an international effort utilising the expertise of OECD member states to develop a common set of indicators, primarily linked to quality of health care. The OECD health system performance framework contained three main goals, namely health improvement and outcomes, responsiveness and access and financial contribution and health expenditure. Following this project, 5 separate panels were set up to develop indicators for specific disease groups or areas, namely Cardiac Indicators (Ulla, et al., 2006), (17 indicators); Diabetes (Nicollucci, et al., 2006), (12 indicators); Primary Care (Marshall, et al., 2006), (27 indicators); Mental Health (Hermann, et al., 2006), (12 indicators); and Patient Safety (McCloughlin, et al., 2006), (21 indicators).

2.4.2.3 European core health indicators

The European Core Health Indicators (ECHI) project was devised by the Network of Competent Authorities on Health Information in 2004 (Network of Competent Authorities on Health Information, 2004). This was preceded by work on the development of a list of around 400 indicators as part the ECHI-1 and ECHI-2 projects under the Health Monitoring Programme, a sub-set of the Public Health Programme (1996-2003). One of the objectives of the Public Health Programme was to develop comparable information on the health of the population, health behaviours and lifestyles, disease incidence, and on health systems, including data on access to care, quality of care, human resources, and on financial viability of health care systems.

DG SANCO (now Sante) continued to refine the data collection and analysis methodology and almost 10 years later, commissioned a study to evaluate the use and impact of the ECHI project by the Member States (DG SANCO, EU Commission, 2013). The outcome was the development of the European Core Health Indicators, with 88 indicators covering 17 policy areas. The indicators fall under one of five categories – demography and socio-economic measures, health status, indicators on health determinants of health, health services and health promotion. The resultant set of 88 core indicators is now used as a framework for EU member states to align their data collection and analytical methodologies with this core list (European Commission, 2013).

The three frameworks outlined above now overlap considerably in terms of policy areas and indicators used. There is, thankfully one may add, a growing momentum of sharing data sets and other information between WHO, OECD and the EU, moving towards greater convergence possibly creating an agreed list of core and supplementary indicators for all member states. This will certainly go a long way in reducing duplication of effort and data as well as streamline methodologies. This has resulted in the publication of OECD's 'Health at a Glance' as a collaborative effort between OECD, WHO and EU.¹

¹ <http://www.oecd.org/health/health-systems/health-at-a-glance-19991312.htm>. Accessed 26/01/18.

2.5 Methods in developing HSPA frameworks

This section outlines the principal methodologies used to develop the various frameworks that have been elucidated upon in the previous sections. Although there is a common ultimate purpose for the development and application of HSPA frameworks, there is a multiplicity of methods in how each framework was developed. The comprehension of the methods employed was deemed important for the author to then determine and inform on the best, or rather most appropriate, method to be used for the development of Malta's first performance assessment framework. Each model was formulated according to the contextual needs of its health system, even though there was always a common thread between most frameworks. Although not explicitly or deliberately demonstrated, the literature consistently shows three principle iterative steps in formulating a HSPA framework, with one iteration building on the previous.

These could be viewed as:

1. Determination of the model to be used.
2. Definition of the domains or dimensions that would constitute the framework.
3. Identification and generation of the performance indicators that would populate the framework.

2.5.1 Developing a model

Most processes start off with an in-depth review of existing literature and a policy analysis to identify the main policy and strategy documents and priorities that the framework would cover. This approach is common to almost all frameworks developed at national level. The Dutch HSPA framework (Ten Asbroek, et al., 2004, p. i67) first considered the development of the conceptual model and then selected the different indicator areas. The Dutch modelling emphasised that the framework must be *'coherently balanced, covering various performance dimensions such as effectiveness, efficiency, quality, and equity.'* Also, the framework must be inclusive of all areas of the health system, including health care and public health domains. Finally, a good framework needs to ensure that it is measuring the impact of the health system upon the health of the population. This latter point is disputable however, since

other proponents argue that a health system encompasses areas that are beyond the direct reach or influence of health care organisations (Kelley, Arispe & Holmes, 2006). This argument is important when we come to discuss attributability as a general limitation of HSPA frameworks.

2.5.2 Testing the model

Once a draft model is developed, this is invariably tested. El Turabi *et al* (2011) used a hybrid methodology of combining the Logic Model with the Balanced Scorecard to draw up their initial model. This was then validated using interviews and focus groups, followed by piloting of the framework to test for acceptability, suitability and feasibility. The wider applicability of the framework could then be gauged by implementing the framework system-wide. El Turabi *et al.* (2011) also utilised an approach that is commonly used in developing HSPA frameworks, that of discussion based consensus decision taking, used primarily amongst experts with high technical knowledge of the subject and then tested through surveys or focus groups/modified Delphi Technique to obtain a wider understanding and ‘buy-in’ from relevant stakeholders.

Mainz (2003) used a similar approach in developing a ‘state of the art’ methodology. His paper outlined two main stages – the planning phase, which included the identification of the clinical areas to be assessed and the ‘measurement team or experts’, and the ‘development phase,’ where the policy and documentation analysis is carried out, followed by the identification of indicators. Pilot testing then followed as a final step.

Together with colleagues, Mainz used this same methodology to develop the HSPA framework for the Danish health system. In their paper, Mainz *et al.* (2004) outlined their work on the National Indicator Project in Denmark, which initially covered specific target diseases, such as stroke, lung cancer and schizophrenia. The steps undertaken for this project were similar to other iterations in that they first identified the problem and set the priority areas, then developed the indicator base, collected and analysed the data and provided interpretive guidance to the policy makers and managers. This data was also audited and disseminated to the public.

2.5.3 Scientific basis of methodology

Whilst the methods used by various experts share a common thread, arguments have been raised from early on that some methods are unsatisfactory and not robust enough to pass the test of scientific rigour. This is mainly attributed to two overriding factors. The first is due to the nature of the framework itself, in an attempt to ‘trap’ all the key attributes that a health system should have, including quality of care, health inequalities, sustainability, efficiency measures and political acceptance. Whilst these attributes are undoubtedly important and relevant, they are not enough to ensure a comprehensive overview of the true objectives of a health system. Another common pitfall is for experts to start the process by simply choosing those indicators that are either already available or easily attainable, with the obvious conundrum of excluding other more relevant dimensions of the health system. Murray and Frenk (2000) gave an early warning shot across our bows in the primordial days of the early 2000s, where they argued that each process to develop a HSPA framework should commence with asking the most basic of questions: What are health systems for? The answer to this question will present the authors with the key goals and strategic objectives of the health system they wish to evaluate and this then paves the way to develop a robust and scientifically sound health system performance assessment framework.

Nonetheless, there is consensus that there are a number of key principles which should be respected, irrespective of which method is embarked upon. These are:

- HSPA, as the name implies, should focus upon health systems as a whole and not on the components parts of a health system.
- Whilst outcome measures are better positioned to mirror performance, structure and process indicators are also valuable.
- HSPA should form part of a regular process to measure performance and devise policy as implied within the policy cycle of a HSPA.
- Although each country or health system should develop its own HSPA, its structure and content should be comparable with that of other countries and health systems.

2.6 Theoretical archetypal models for HSPA

A performance assessment framework could be seen as a conceptual model that incorporates the most relevant domains that best describe the goals of the health system it promulgates. It depicts the inter-relationships that exist between the different domains of a health system and the goals of the health system (Kelley & Hurst, 2006) and therefore, such a framework evolves from the strategic objectives of the health system. A performance assessment framework therefore provides structure and formality to the measurement of the performance of the various components of a health system. This section shall outline the main models used, citing specific case studies as examples. The next section will then describe the contents of a HSPA framework.

2.6.1 Donabedian Model

The Donabedian Model (Donabedian, 2005) for assessing performance is the most predominant model that has been used to underpin the development of many HSPA frameworks. This model, first developed in the sixties by Avedis Donabedian, assesses quality through three broad areas; structure or inputs, process and outcomes.

‘Structure’ refers to all the various inputs and resources that are utilised to provide a health care service, such as infrastructure, equipment, human capital, training, financial resources and IT systems. The way the structural factors come together and interact delineate the process of care. This includes care pathways, the interaction between patients, care providers and funders, clinical protocols and guidelines. Many models then identify and measure outcomes in the form of health status of the population, patient satisfaction, financial and social protection systems, quality of life measures, hospital indices and many others. The HSPA frameworks of Portugal, Estonia, Hungary and eventually Malta followed this conceptual model.

Figure 2.1 features Portugal’s HSPA which is based on the Donabedian framework.

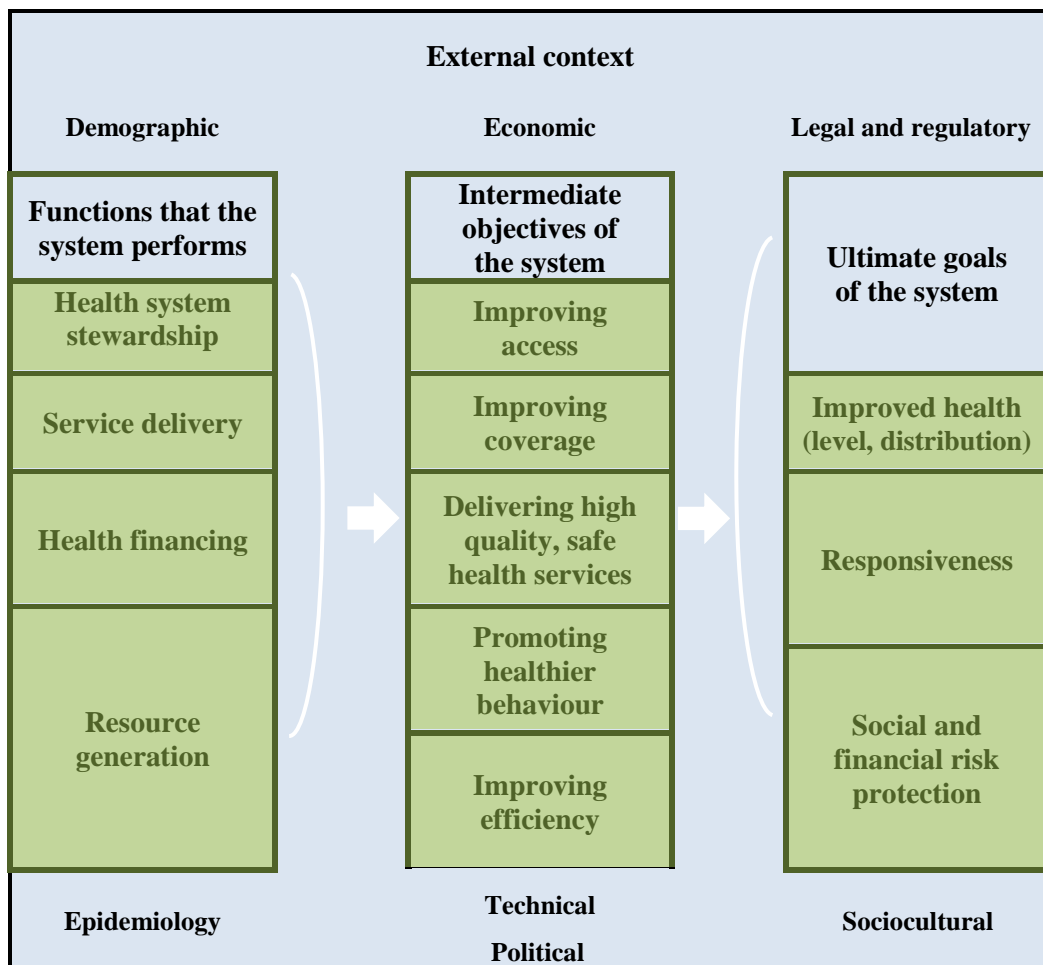


Figure 2.1: Portugal's HSPA based on the Donabedian framework

Source: World Health Organisation, Regional Office for Europe (2010a)

2.6.2 Balanced score card and outcomes framework

The first UK HSPA framework was developed within the context of a new Public Service Agreement between the UK Treasury and the Department of Health (2001). The agreement focused upon performance monitoring, creating the right performance data infrastructure to collect the performance measures and to have a robust regulatory framework in a decentralised system. Due to its emphasis upon performance monitoring and reporting, this framework was based upon the balanced scorecard approach (Kaplan & Norton, 1992). This model coalesces all the indicators in a unified cohesive manner and creates a system of measurement, assessment and reward (or retribution). The original framework looked at the service user, internal management processes, continuous improvement, and financial outcomes (Audit Commission, UK, 2000).

With a change of government in 2010, a White Paper (Liberating the NHS) was released which outlined the Coalition Government's intention to move the NHS away from focusing on process targets to measuring health outcomes. In December 2010, the first NHS Outcomes Framework was published and has been updated yearly. Five domains, derived from Lord Darzi's three-part definition were developed within the Framework.

2.6.3 The Logic Model

The Canadian model was initially developed for the Treasury Board of Canada using a results-based Logic-Model (Treasury Board of Canada, 2001), (Watson, 2009a). A Logic Model pursues a Donabedian approach in that it depicts the flow of resources and processes required to produce the outcomes in line with the organisation's policies and objectives. In other words, as for the Donabedian way, this model attempts to visually depict and outline the link between inputs, activities, outputs and outcomes. It is useful in certain circumstances since it offers a structured approach towards the development of an information system where this is absent. It has, therefore, been used in settings where data is absent or rudimentary and was adopted for the development of a framework and indicators in the primary care setting, both in Canada (Watson, 2009b) and in China (Wong, et al., 2010).

In 2013, this model was updated by the CIHI (2013) with the intention to provide a pan-Canadian perspective on health system performance. This framework includes four interrelated quadrants namely; health system outcomes, social determinants of health, health system outputs and health system inputs and characteristics, again based upon the Donabedian model as proposed in his 1980 paper (Donabedian, 1980a).

As for all frameworks, these quadrants or dimensions relate to each other within an external demographic, political, economic and cultural context. Interestingly, this is one of the few models which explicitly recognises the social determinants of health as a determining factor within a performance framework.

This framework is presented in Figure 2.2.

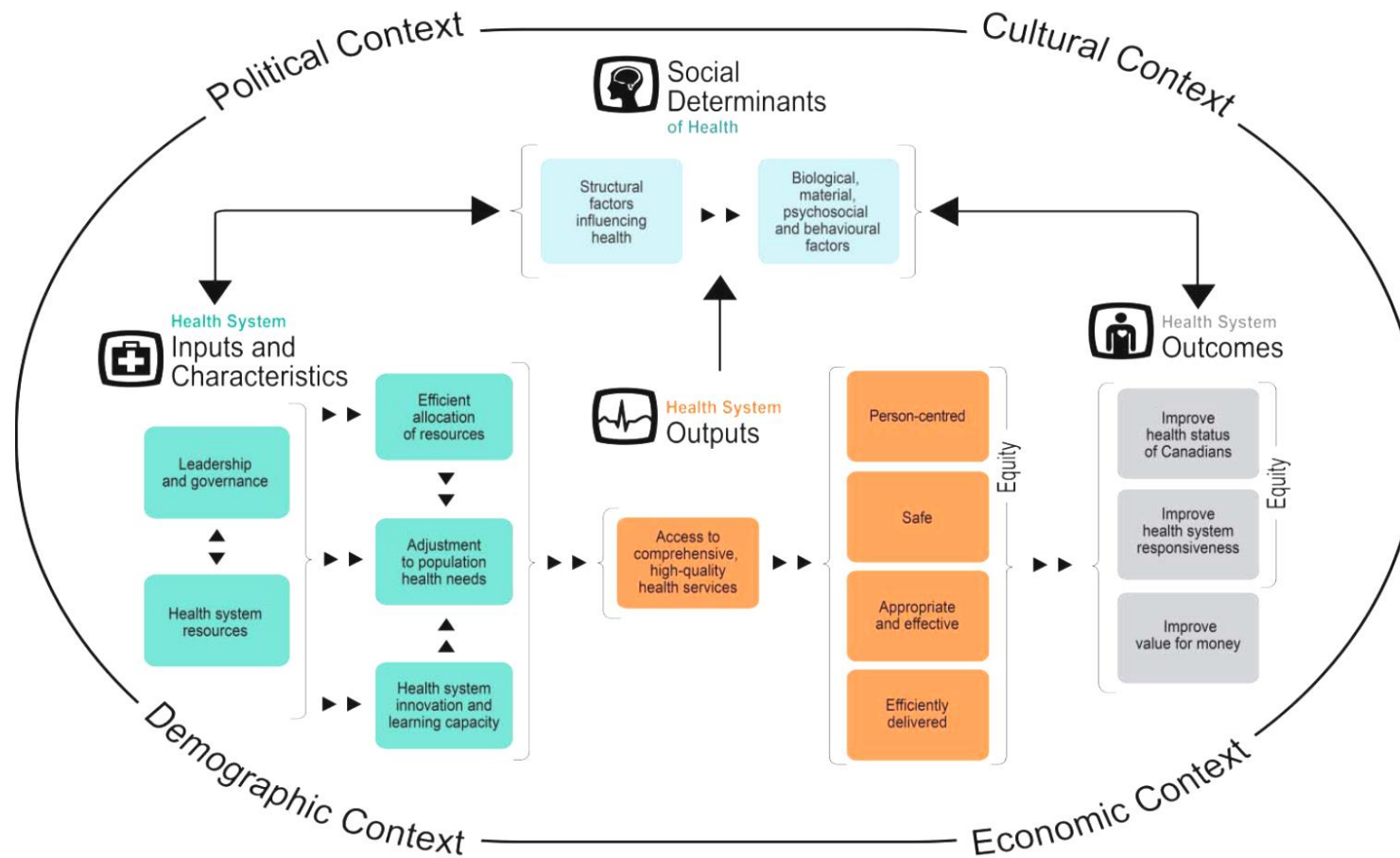


Figure 2.2: CIHI's new Health System Performance Measurement Framework

Source: Canadian Institute for Health Information (2013)

2.6.4 The OECD Quality Model

The OECD project (Arah, et al., 2006) on developing quality indicators focused upon a conceptual framework to emphasise primarily the quality dimension of the project, whilst also keeping in mind a broader perspective on health and its other determinants, in line with the priorities and objectives of OECD member states. It was built upon elements of the frameworks produced by the Institute of Medicine of the US, the CIHI framework, as well as adaptations from the Australian and WHO frameworks.

As with the CIHI framework, the OECD HSPA Framework contains four dimensions related to health, namely; non-health care determinants of health, health system performance and health system design and context. Again, this model follows the input/structure/process/outcomes model used in the other frameworks mentioned earlier. Quality occupies a central tenet of the model and is represented by the sub-dimensions of effectiveness, safety and responsiveness and patient centeredness.

This model shows that quality is portrayed by many definitions, but this model places an emphasis on these three qualities of quality. Non-health care determinants of health also play an important role in the model in recognition of factors outside the direct influence of health that affect health and the performance of the health care system.

This model was adopted by many of OECD's member states for the development of their own quality indicators. Also, OECD produced numerous other reports and publications using this model as a premise.

This model is depicted in Figure 2.3.

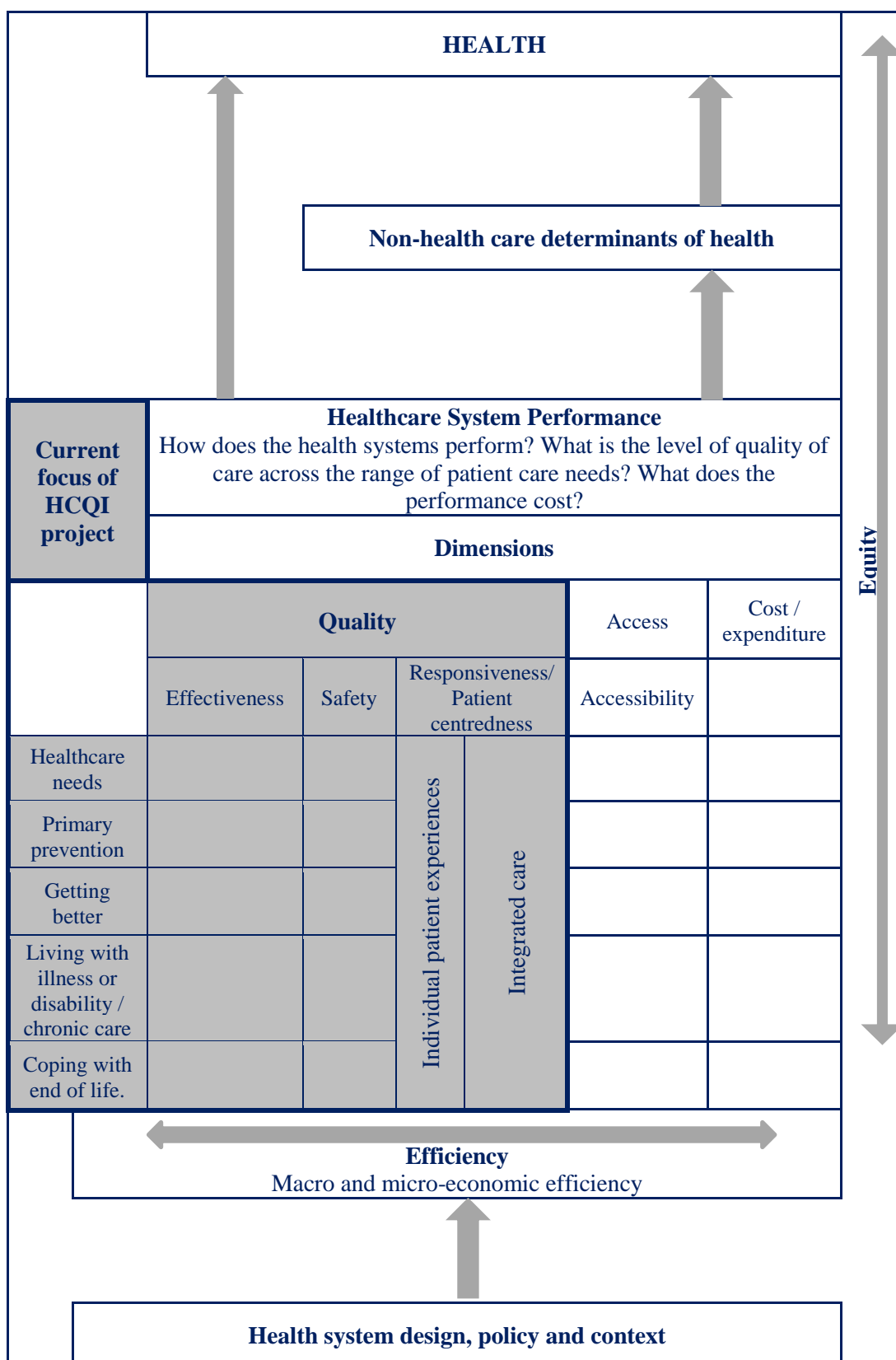


Figure 2.3: Conceptual framework for Organisation for Economic Cooperation and Development Health Care Quality Indicator (HCQI) Project.

Source: Carinci, *et al.*, (2015)

2.6.5 WHO's goal driven model

The model proposed by WHO takes a different path from many of the models described so far. The main tenet pertaining to the WHO model is that it is goal driven (Murray & Frenk, 2000). It examines the key strategic objectives of a health system, defines its boundaries and formulates the model around processes designed to achieve these objectives. One can argue that this approach is different from the others since WHO was amongst the first to draw up a HSPA framework. However, the author believes that there is more purpose than chance in the reason for using this type of model. WHO needs to cater for over 190 member-states, with significant variations in wealth, health status and degree of health care development and provision. Therefore, the previous models may not be applicable to all settings and indeed may be more appropriate to higher GDP countries. The approach towards a 'goal performance' model is attuned to the needs of those member states which are still developing their health infrastructure and systems and hence, would find the WHO model (Figure 2.4) easier to apply in their local setting.

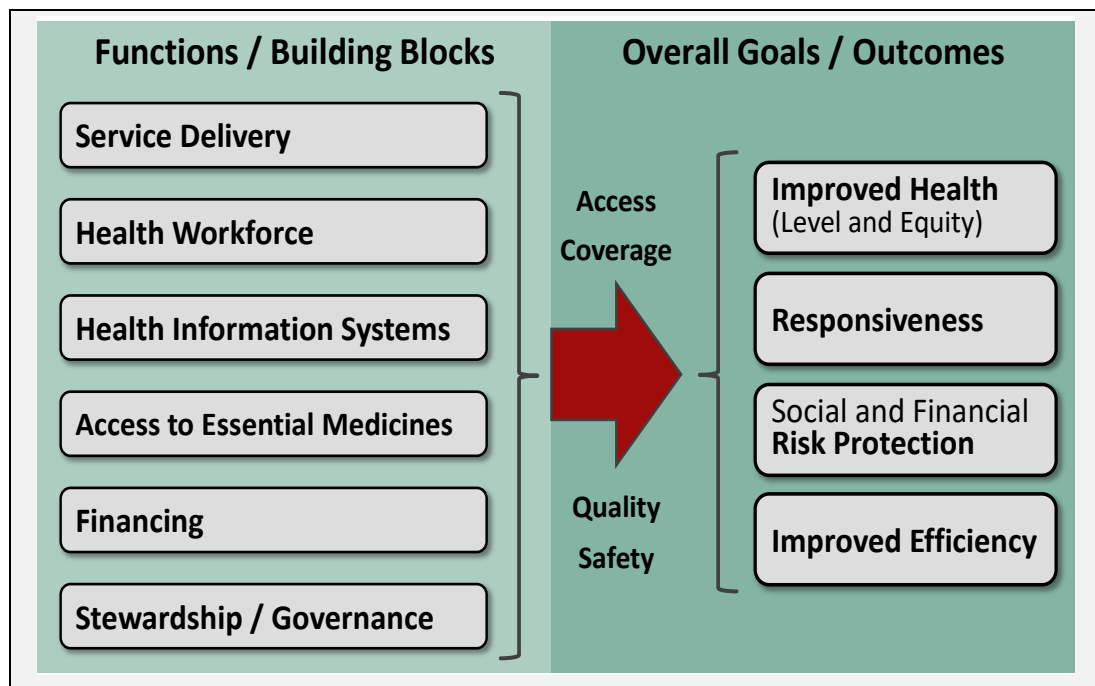


Figure 2.4: WHO's HSPA Framework

Source: World Health Organization (2007)

2.7 Content of frameworks

Each framework inevitably comprises the various dimensions or domains. The way they are depicted visually is important as it portrays the importance and relevance of the dimensions and their relationship to the objectives of the health system the model represents.

2.7.1 Outline of dimensions and their significance

The identification of the dimensions or domains within a framework is the second or intermediary step to finalising the HSPA framework. After determination of the goals, objectives and priorities of the health system and following the elucidation of the underlying conceptual model that would underpin the framework, the next step is to identify and elaborate on the various domains or dimensions that constitute the main body of the framework.

These dimensions are derived from the original strategic objectives of the health system in that they represent what the health system ‘stands for.’ Whilst in themselves they do not provide any purposeful information, their purpose is to encapsulate the various indicators that measure health system performance and hence, provide structure and form to the framework. They also ensure as comprehensive an approach as possible to include all those indicators that are of relevance for that particular health system.

2.7.2 Input or structures domains

These domains usually pertain to aspects of the health system that deal with human, capital and financial resources. Hence, any measures linked to human capital, infrastructure, equipment and beds, financial resources and the proper allocation of these resources are linked to these domains. Health system design, policies, organisational arrangements, stewardship (including leadership) and ICT systems are also regarded as domains pertaining to the inputs side of the equation.

2.7.3 Process domains

Process domains are regarded as the ‘operationalisation’ of the inputs and touch upon important issues such as equity and coverage, access (of care and finance), efficiency,

quality of care, responsiveness and choice, including patient centeredness, supply chain factors, innovation and patient safety. These domains are sometimes grouped under intermediate outcomes or goals.

2.7.4 Outcome domains

These domains deal with measuring the health outcomes of the health system and therefore include health status measures (usually at population level), patient or consumer satisfaction indices, financial and social risk protection, value for money and sustainability, as well as overall health system responsiveness.

2.7.5 Domains as reflections of the health systems they measure

As can be seen from the previous sections, the domains provide a reflection of what the health system stands for, or reflect the overriding priorities and strategic objectives of the health system. Whilst most of these domains are common to all HSPA frameworks, variations do occur since each health system has its unique characteristics and goals. Hence, a framework for a developing country may place more emphasis upon infrastructure, equity and access and capacity, whilst that of a mature health system would focus primarily upon sustainability, efficiency and quality of care. The figure in Appendix 1 is taken from work undertaken by Arah *et al.* (2006) and shows the various dimensions or domains within the different HSPA Frameworks.

As part of the exercise to develop a HSPA framework for Malta, the author identified the framework presented in Figure 2.5 as a template on which to build upon. This was taken from the recent work carried out by Estonian colleagues (Sotsiaal Ministerium, 2009) in the development of Estonia's HSPA framework and will be mentioned again in the methodology part of this chapter.

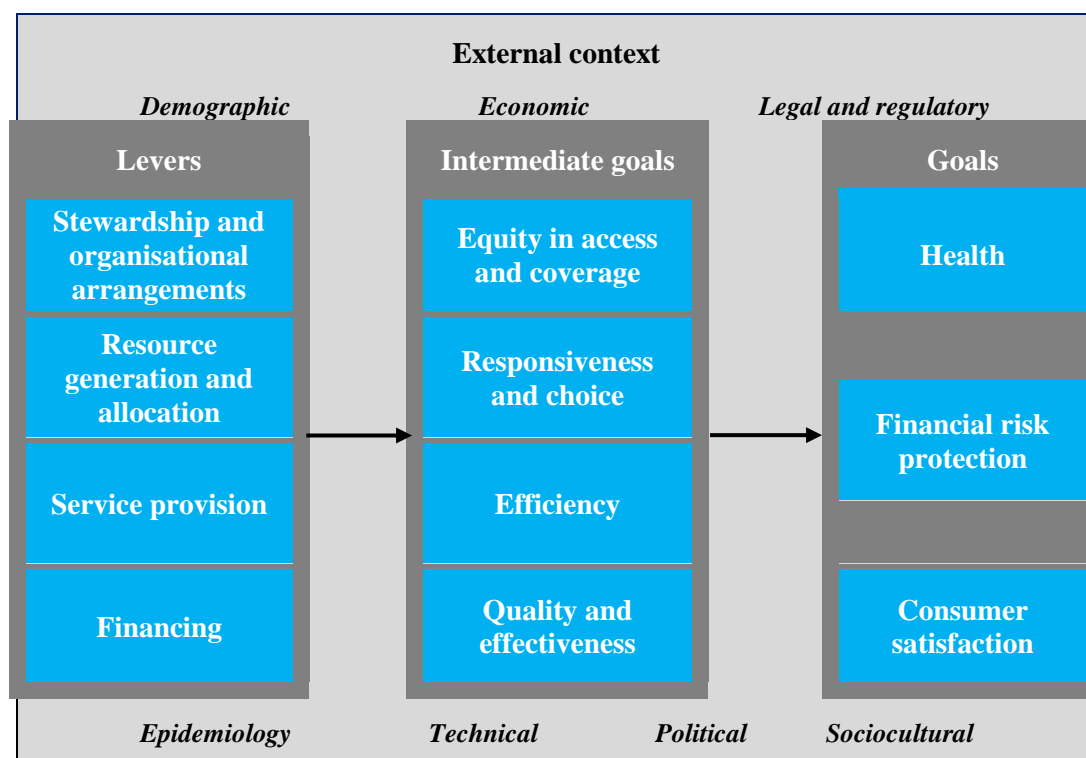


Figure 2.5: Conceptual model of Estonia's HSPA Framework

Source: World Health Organisation, Regional Office for Europe (2010b)

2.7.6 Indicators

The generation, collection and analysis of indicators represents the last step in the methodology used to develop HSPA frameworks and constitutes the 'core business,' so to say, of all frameworks. The literature describes a myriad of methods in the identification, definition, classification, validation, collection and analysis of indicators. The purpose of this section is not to repeat what is already available in the literature but to inform the process that could be used in the formulation and validation of indicators relevant to the Malta model.

Klazinga (2001) contended that information captured by an indicator is primarily used in processes of monitoring (control) and evaluation (planning and improvement / change) and explained that the process for development of indicators should always start with the question: 'Who wants this indicator to do what, in relation to whom?' This is required to ensure methodological rigour.

Indicators have been developed and mapped into frameworks through a variety of methods. The most commonly used method is that of identifying suitable indicators

from the international literature and then mapping these indicators onto the domains referred to above. Unfortunately, this method is principally flawed, since the identified indicators may not be appropriate or relevant to the priorities and goals of the health system they are meant to assess. Ideally, indicators are generated *de novo*, seeking to identify those indicators or measures that would provide a direct or indirect (proxy) measure of the domains within the framework, assuming of course that these domains have already been purposefully chosen to reflect the objectives and priorities of the health system.

In the early development days of HSPA frameworks, Rubin, Pronovost and Diette (2001) outlined in detail the methodology for the development and testing of indicators. They contended that measures need to be meaningful, scientifically sound, generalisable and interpretable and went on to describe a 7-step process to develop a robust measure, including testing for validity and reliability. A scoring method, based on the RAND Appropriateness Method, was then devised to rate/score draft indicators, using 5 to 7 independent raters (to ensure inter-rater reliability). The next stage involved drawing up of the specifications for each indicator and then carrying out preliminary testing for reliability and validity, usually through piloting. The above described methodology outlines the most common process used to create indicators by most studies in the decade that followed.

Kristensen, Mainz and Bartels (2009) used a three-phase approach towards developing safety of care indicators for the ‘Safety Improvement for Patients in Europe’ project. These phases were classified as the Planning Phase (choice of area of study, selection of priorities and establishment of expert team), the Development Phase (review of existing evidence and rating and mapping of indicators) and the last, the Testing Phase (validation of indicators). In this last phase, indicators were scored for relevance and appropriateness (Score 1-9), validity and reliability (Score 1-9) and feasibility (Score 1-9). This scoring methodology can be found in many other studies and is also primarily based upon the RAND Appropriateness methodology (Fitch, et al., 2001).

Perera, Dowell and Crampton (2012) provides an elaboration of previous methods to identify indicators using what they term as the Systematic Indicator Development Method (SID), based on the premise that indicators need to be appropriately chosen

for the purpose they have been created and the information generated from the results needs to be correctly interpreted. They contend that indicators are not always ‘axiomatically good’ since indicators developed for one purpose may not be appropriate for a different application. Sound judgments and interpretations are required to assure that indicators are not technically flawed, unreliable or worse, create controversy and perverse interpretations. As with other authors, the initial work was based on a literature review and interviews with policy makers, planners, providers and clinicians. Similar to other techniques employed by other authors, they produced a 6-step iterative process as follows:

- | | |
|---------|--|
| Stage 1 | Prioritisation and Selection; |
| Stage 2 | Delineation of Intent (definition of purpose); |
| Stage 3 | Determination of Implementation Requirements; |
| Stage 4 | Development of Measure Specifications; |
| Stage 5 | Assessment of fitness for purpose; |
| Stage 6 | Development of Targets (benchmarks). |

2.7.6.1 Testing indicators for appropriateness: Validity vs feasibility

All the studies reviewed give away a certain tension between choosing indicators that are scientifically robust and sound and those that are feasible and acceptable to measure. Whilst the testing of reliability and validity is considered an essential step in all of the studies, there is an equally weighted acknowledgment that an indicator also needs to be relatively easy to measure, available and acceptable to the policy makers as well as to the wider audience and not just to the scientific community. This dilemma was amply considered in the OECD quality indicators project when devising their core set of indicators (Jee & Or, 1999). Arah *et al.* (2003, p. 392) consider:

... that there is a trade-off between scientific objectivity and feasibility that appears to be at work in how these effectiveness indicators are conceptualized and operationalized, just as these countries and agencies strive to appease both purists and pragmatist.

However having said this, in a study on comparing validity / reliability with feasibility, Pena *et al* (2010) used two rounds of the modified Delphi process to test validity versus feasibility of a set of proposed indicators using the RAND / UCLA appropriateness

method (Fitch, et al., 2001). They found a surprisingly high level of association between validity and feasibility which jars with the opinion that these two attributes run counter to each other when formulating and testing indicators. Hence, it would seem that a balance could indeed be reached in order to appease both the scientific mandarins, as well as the policy makers.

2.8 Lessons learnt

After several years of developing HSPA frameworks, the scientific community and health system stewards have learnt several valuable lessons that are applicable to all settings and frameworks (Kelley, Arispe & Holmes, 2006). Firstly, the creation of a conceptual model within which the HSPA framework would fit is still considered an essential passage to help guide the eventual formulation and selection of indicators, although it is tempting to forego this initial step.

The conceptual framework provides the health system with the required boundaries and inherent structure to develop the measures and indicators. Methods then adapt to add and subtract indicators while maintaining a stable set of indicators to track over time. Changing indicators over time was also found to be required in response to the ever-changing health system landscape, especially to remain responsive to changes in the evidence base for quality measurement.

One must also fully comprehend the limitations of HSPA frameworks, especially in view of attributability or causality, as well as limitations in comparability. Mitigating measures are taken in the form of adjustment for case mix (Mainz, et al., 2004). To secure the comparability of the collected data at various levels, predictive factors are identified and used as explanation variables to adjust for case mix.

This is important as it then becomes possible to evaluate whether a favourable or unfavourable outcome is due to the health care system or due to conditions over which the health care system has no influence, e.g. conditions related to the patient or the disease. Such case mix adjustment models have allowed us to overcome the issues of causality and comparability across health systems.

2.9 Relationship between performance assessment frameworks and policy development

In his foreword for the volume ‘Performance Measurement for Health System Improvement’ (Smith, et al., 2009a, p. ix), the Deputy Regional Director of WHO states that *‘the provision of relevant, accurate and timely performance information is essential for assuring and improving the performance of health system.’* This statement shows that whilst performance improvement is very much on the agenda of senior health policy makers, the impact of performance assessment on health policy development seems to play second fiddle.

This observation epitomises the focus of the second part of the thesis which aims to explore the impact health system performance assessment frameworks have upon the development of policy and the shaping of reforms within the health system. This is also known as the policy cycle, wherein the performance assessment framework ‘informs’ policy and assists policy makers in setting priorities and in taking key system-wide decisions. These policy developments in turn shape the content and structure of performance frameworks and determine which performance indicators are included/excluded in line with changing priorities and policies. Hence, a continuous cycle is created which links performance assessment frameworks with policy development.

Forty-five years ago, Campbell (1969) described reform as a social experiment that requires careful evaluation using scientifically robust and quasi-experimental methods to ensure a link between the evidence and policy development. He likened policy reform to the development of new pharmaceuticals and technology, where if not properly introduced, can damage people’s (and in the case of system reform, population’s) health. However, this piece of advice seems to have fallen on deaf ears since, 40 years later, reforms and policy development are still poorly regulated and certainly do not undergo systematic evaluation using quasi-experimental or Randomised Controlled Trial methodology as advocated by Campbell (Expert Group on Health System Performance Assessment - Primary care focus group, 2017).

This part of the literature review explores the relationship, if any, between Health System Performance Assessment Frameworks and policy development and reform.

We already know and have shown that the policy agenda informs and indeed guides the development of HSPA Frameworks and anchors the use of such frameworks within a contextual delineation. However, there is little evidence to show that the contrary is also applicable, where HSPA Frameworks have had a direct and enduring impact or influence upon policy development and reform decision taking.

2.10 Search method

The key words used as search terms for this part of the literature review were ‘policy cycle,’ ‘health policy’ and ‘(health) policy development,’ in addition to the previously used terms of ‘performance measurement,’ ‘performance assessment’ and ‘performance assessment framework.’ As in the previous search strategy, a normal literature search method was employed since the aim was not to produce a systematic review using a strict methodology such as Prisma.

The electronic databases of Medline, Embase and Web of Science were also used for this part of the literature review, using the year 2000 as a cut-off date and only English language peer reviewed articles were sought, again with a few exceptions. Depending upon the database used, single term searches produced hits in their hundreds or thousands in certain cases. For this reason, combinations of two or, in some cases, three keywords were necessary to narrow down the number of hits.

Tables 2.6 – 2.9 provide a summary of the search results. The figures in brackets are the number of articles that were deemed relevant for this research and were downloaded and reviewed in detail. Duplicates are included in the figures.

2.10.1 Medline

The search through the Medline database produced the following results:

Table 2.6: References derived from two-word combinations (just Medline)

	Policy Cycle	Health Policy	Policy Development	Health Policy Development	Performance Assessment	Performance Measurement	Performance Assessment Framework
Policy Cycle	20 (6)	N/A	N/A	N/A	1 (1)	1 (1)	0
Health Policy	N/A	73177	N/A	N/A	26 (4)	63 (13)	1 (1)
Policy Development	N/A	N/A	2189	N/A	4 (1)	2 (1)	1 (0)
Health Policy Development	N/A	N/A	N/A	184 (16)	0	0	0
Performance Assessment	1 (1)	26 (4)	4 (1)	0	1181	N/A	N/A
Performance Measurement	1 (1)	63 (13)	2 (1)	0	N/A	849	N/A
Performance Assessment Framework	0	1 (1)	1 (0)	0	N/A	N/A	18 (7)

2.10.2 Embase

The search through the Embase database produced the following results:

Table 2.7: References derived from two-word combinations (just Embase)

	Policy Cycle	Health Policy	Policy Development	Health Policy Development	Performance Assessment	Performance Measurement	Performance Assessment Framework
Policy Cycle	32 (6)	N/A	N/A	N/A	1 (1)	1 (1)	0
Health Policy	N/A	47239	N/A	N/A	31 (5)	183 (14)	1 (1)
Policy Development	N/A	N/A	2839	N/A	5 (1)	5 (2)	1 (0)
Health Policy Development	N/A	N/A	N/A	232 (9)	0	1 (1)	0
Performance Assessment	1 (1)	31 95)	5 (1)	0	1820	N/A	N/A
Performance Measurement	1 (1)	183 (14)	5 (2)	1 (1)	N/A	4019	N/A
Performance Assessment Framework	0	1 (1)	1 (0)	0	N/A	N/A	18

2.10.3 Web of Science

The search through the Web of Science database produced the results as shown in Table 2.8 and 2.9:

Table 2.8: References from two-word combinations (just Web of Science)

	Policy Cycle	Health Policy	Policy Development	Health Policy Development	Performance Assessment	Performance Measurement	Performance Assessment Framework
Policy Cycle	9919	N/A	N/A	N/A	245 (2)	45 (3)	53 (2)
Health Policy	N/A	62967	N/A	N/A	555	285 (29)	110 (14)
Policy Development	N/A	N/A	68266	N/A	773	358	175 (6)
Health Policy Development	N/A	N/A	N/A	12885	175 (7)	80 (13)	45 (6)
Performance Assessment	245 (2)	555	773	175 (7)	83964	N/A	N/A
Performance Measurement	45 (3)	285 (29)	358	80 (13)	N/A	154263	N/A
Performance Assessment Framework	53 (2)	110 (14)	175 (6)	45 (6)	N/A	N/A	5099

Table 2.9: References from three-word combinations (just Web of Science)

	Web of Science
Health Sys+Perf.Ass.Framework+Policy Dev.	64 (7)
Perf.Meas.+Policy Dev.+Health Policy	161 (8)
Perf Ass.+Policy Dev.+Health Policy	175 (12)

In addition to the above, the use of snowballing was also used and grey literature was also extracted given that many policy-related documents are not submitted to peer-reviewed journals for publication.

2.11 Reform and policy development: An overview

Health care reform is driven by several salient overarching objectives which every health system strives to achieve through the changes it promulgates. These can be summarised as the pursuit of universal access to all its population through various mechanisms of health care coverage, improving choice and quality of services, ensuring a sustainable health care system through cost-effective and value-for-money measures as well as creating a more transparent and accountable health system.

2.11.1 Constituting reforms

There is no widely accepted definition of what constitutes reform in health care. Cassals (1995) defined health care reform as activities concerned with changing health policies and the institutions through which these changes are implemented. Hence, reform is both about changing or refining health policies and changing the structures responsible for reforms, to be in a better position to deliver these policies.

To achieve these ambitious aims, health reform can also be defined as a process that involves sustained and profound institutional and structural change, which is usually, but not necessarily, led by governments, but which always seeks to attain a series of clear explicit policy objectives. Saltman and Figueras (1997) outline an analytical model to capture the characteristics of what constitutes a real or true health reform:

- *Process*

- Structural rather than incremental or evolutionary change;
- Change in policy objectives, followed by institutional change rather than redefinition of objectives alone;
- Purposive rather than haphazard change;
- Sustained and long term rather than one-off change;
- Political top-down process led by national, regional or local government.

- *Content*

- Diversity in the measures adopted;
- Determination by country-specific characteristics of health systems.

This analytical model leaves very little doubt as to the far-reaching and profound changes that are implicit for real reform to occur. However, not all proponents of change would agree that reform needs to be so cataclysmic, as many other different models of change have been postulated. The Burke-Litwin Model of Change (Burke & Litwin, 1992) portrays change through a transformational process or through a transactional process. Whilst the former may be considered more revolutionary in nature, health care change management processes are more consistent with the latter process, since this entails a less dramatic change. Another major model of change developed in recent times is the concept of organisational development (Beckhard & Pritchard, 1992), (Koeck, 1998), (Huntington, Gilliam & Rosen (2000). Organisational development is focused upon empowering organisations to manage their own change. It views change in three phases, that of **unfreezing** (removal of expectations, dealing with the anxiety of change and conversion of anxiety into motivation to change), **moving** (creating a new role model and new relevant formation) and **refreezing** (consolidation of new structures and networks). It is a model often subscribed to in the UK NHS. A similar model of change is based upon the transformational change process as first described by Lewin (Lewin, 1958), where he was concerned with social change and, more particularly, with effective, permanent social change, believing that the motivation to change was strongly related to action.

Business process re-engineering is a more established model of change, championed by major manufacturing industries in Japan and the US. Whilst its conceptual framework is robust, and it has indeed proven to be a major driver for change, its applicability and appropriateness in health is questionable since it presupposes a completely clean sheet to start the change, a situation that is rarely encountered in health. Whilst Saltman and Figueras (1997) subscribe to the notion that reform is a radical and profound change in the process and content of health systems, experience has otherwise shown that reform or policy development and change could also and

indeed, is more often, gradual and incremental, less planned in origin and less purposeful in scope.

Policy change can be instigated from within or can be brought about due to changes in the external environment. It is usually, but not necessarily, driven by government, using a top-down approach. However, reform is more often about healthcare politics and less about reform of health systems (Giaimo & Manow, 1999), (Freedom, 2000).

Finally, health reforms have been described in four phases over the last four decades. The 70's and 80's saw an emphasis upon cost containment at the macro level. Micro-efficiency and responsiveness were the main impetus for reforms in the early 1990's, whilst the turn of the century heralded the era of rationing and priority-setting (Ham, 1997). The more recent reforms have placed quality improvements and safety in health care as priority areas. These provided a basis for policy development throughout these years and each period reflected the different priorities in policy making.

2.11.2 Models of policy development

As already noted, policy development is a multifaceted iterative process, involving many actors and influenced by many factors. It is an art as well as a scientific means to take important decisions and whilst public policy making invariably involves the State, governments do not have a monopoly of policy development. Having said this, Anderson (1975, p. 2) views policy making as the role governments play in taking decisions and adhering to a course of action in order to address a specific social or economic challenge, and in so doing, the State adopts specific strategies to implement the policy at hand. In fact, he defines policy as '*a purposive course of action followed by an actor or series of actors in dealing with a problem or matter of concern.*'

Many view policy development as a process rather than as a stand-alone event, since policy varies according to the level it is fashioned and is not only considered a starting point but also an incremental cycle of decision making and change (Rose, 1976), (Jenkins, 1978). Rose (1969) had already made such an argument when stating that policy making is best conveyed by describing it as a process, rather than as a single, once-for-all act. Linking policy making to specific events makes it wholly dependent

upon the context in which policy is formulated. Such contextual factors have a crucial influence upon the content of a policy. The same policy may change with changing circumstances, since this is primarily a 'political' process. The context may refer to the political system, the socio-economic situation, the values and other cultural factors that influence societal changes, local and international-based legislation, structural and organisational factors, the geo-political dimension and historical perspective, as well as religious and environmental factors. Policy is also determined by 'actors,' acting either individually or more often together. Actors steer, conduct, implement and evaluate the policy process. It is important to appreciate that actors are not value-free and always form part of an interest group.

At a local level, the most influential actor is of course the government of the day, in addition to the political parties, the legislature, the judiciary, the executive, the public service and external expert advisors. International organisations, such as WHO, CION, the World Bank, International Monetary Fund and OECD are increasingly becoming influential in shaping national, regional and even international policies. The media is no longer a mere spectator but with today's technology and social networking, the media has evolved into becoming one of the key players in influencing the policy agenda. Finally, the academic community is slowly but surely making inroads when it comes to swaying policy decisions which are more knowledge-based and grounded in evidence, rather than all the other aforementioned shaping factors.

The above mentioned four areas have been amply elucidated upon by Walt (1994) in her seminal work on the political process of policy making. She argued that policy development could be viewed in four different but interlinked dimensions, pertaining to policy content, the context within which a policy is created, the policy process and finally, the actors involved in the drawing up of the policy.

Another policy change model is that promulgated by Kingdon in his 'multiple streams' model of change (Kingdon, 1984); (Rawat & Morris, 2016). Kingdon developed the multiple streams model as an off-shoot of the Garbage Can model of Cohen, March and Olsen (Cohen, et al., 1972). He postulated that change is instigated by a combination of two main factors, those of participants and processes. Similar to the Walt model, participants refer to those actors that influence policy change directly or

indirectly. More importantly the processes or streams refer to the confluence of three aspects: those of problems, policies and politics. Once there is convergence of these three streams in a timely manner, then Kingdon postulates that change would occur, in what he terms as a 'policy window'. This is important to consider in health care as serious problems occur frequently but potential solutions and the political will to tackle the problem is not always evident. HSPA interjects in this process but highlighted the problems or gaps in the system and offering potential solutions.

2.11.3 Approaches to policy development

The literature presents a large number of approaches in policy making, including the rational approach (Vedung, 2000), the incremental approach (Lindblom, 1959), the mixed scanning model (Etzioni, 1967), group theory, elite theory (Prewitt & Stone, 1973), pluralist theory (Hirst, 1993) and the political system model (Duverger, 1980).

The rational approach presupposes that policy is determined primarily through a rigorous scientific approach based on identification of the problem and need, setting clear objectives, an optional appraisal (considering alternatives and consequences) and making a choice that maximises the attainment of the goals identified beforehand. On the other hand, the incrementalist approach is based upon the premise that new policy is formulated on past policies and experiences, through a selection of goals determined by past and present policies and closely linked to the means of implementation. The options chosen in this scenario differ only marginally from the status quo and the best option is often that which achieves the widest agreement or consensus amongst policy-makers. This approach is invariably used in international settings such as the WHO or EU.

A combination of some approaches has also been advocated over time. These pertain to the approaches promulgated by Simon (1957) (Bounded Rationality), that of Disjointed Incrementalism or 'muddling through' as proposed by Lindblom (1959), the Mixed Scanning (broad angle then zoom) approach of Etzioni (1967) and the Extra-rationality or Normative Model by Dror (1989).

Another important theory is that put forward by Sabatier termed the Advocacy Coalition Framework (Sabatier, 2007). This theory views policy making as a result of

a confluence of coalitions which work together and seek a coordinated approach to policy solutions. This enables complex policy problems involving several actors and different levels of state and non-state involvement to be resolved, in spite of the presence of uncertainty and ambiguity. This theory is influential in that it provides a framework for complex policy solutions, where it is postulated that policy change and reforms are instigated by the competitive forces between these coalitions.

2.12 Analysing policy change

Many models of analysis of reform and change have been put forward. The more traditional models have been utilised many a time to describe and explore the reasons and characteristics of organisations before and after change has occurred. PESTEL Analysis (Political, Economic, Social, Technological, Environmental and Legal) describes a framework of macro-environmental factors used in analysing organisations from a strategic perspective, whilst the McKinsey 7S Model is a model postulated by Waterman, Peters and Phillips (1980) drawing upon the internal structural and process driven elements of an organisation.

Of perhaps more value to the political process of policy development are the theories of new institutionalism which seek to not only provide a descriptive and evaluative perspective but more importantly, for the objectives of this research, an explanatory viewpoint. New institutionalism encompasses three main branches; historical institutionalism, rational choice institutionalism and sociological institutionalism (Hall & Taylor, 1996), (Rittberger, 2003). Of these, ‘historical institutionalism’ is the more relevant since it utilises the ‘path dependency’ paradigm which postulates that *‘institutions push policy along particular paths, where early choices and events play a crucial role in determining the subsequent development of institutions and policies’* (Oliver & Mossialas, 2005, p. 11).

In the path-dependent model, actors are constrained by existing institutions and structures that channel them along established policy paths. Therefore, large (non-incremental) change is unlikely, although systems do occasionally experience significant change over a relatively short period of time (Wilsford, 1994). This theory subscribes to the position that reform is slow to progress just like nature, but then it is

punctuated by rapid events of change, just like genetic mutations or a natural event having global effects. Despite a general perception to the contrary, the concept of path dependency is not about '*policy inertia*' (Hall, 1993, p. 275–296), but about the impact that historical, contextual events have upon policy change. It draws on the principle that institutions have a 'memory' which is the cause of friction between proponents of change and policy laggards.

2.13 Measuring policy success

Marmora and Wendt (2012), in a political analysis of health care reforms, advocate that research into policy development and system reform is not complete without actually measuring the successes or otherwise of policy decisions. Measurement of policy outcomes forms an integral part of any reform process and without performance information, there is no strong evidence with which to design health care reform (Smith, et al., 2012). Defining health policy goals, such as improving cost effectiveness, augmenting population health and assuring patient safety, as well as performance monitoring, are examples of how health policy decision making can be better informed (Smith, et al., 2009b).

Marmora and Wendt (2012, p. 11) feel that we need '*to extend our understanding about the outcomes of different national healthcare arrangements and whether policy reforms actually deliver results. To do this, we need to pay more attention to the measurement of success.*' In this context, Kutzin (2010) has drawn up a methodological approach for comparing health policy results, rather than just comparing reform strategies between different countries. To date, there have been few comparative studies that have focused upon the results arising from the implementation of health policy, other than using financial reforms and levels of care provision. There is a gap in comparative inter-country studies on targets and performance measurement, linked to health policy processes and health system outcomes, especially looking at performance measurement through the implementation of HSPA Frameworks.

The objective of performance assessment is to provide governments, health authorities and populations with appropriate information about the state of their healthcare

systems. Altes *et al.* (2007), in their work to develop a performance assessment framework and indicators for a twinning project between Barcelona and Montreal, stated that:

... some of the aims of any relevant performance assessment are to build an evidence base on the relationship between a health-system design and its performance, providing policy makers with crucial tools to develop effective, efficient and equitable systems, and to help determine priorities for healthcare interventions, contributing to their design and management (Altes *et al.*, (2007, p. 791).

This is essentially the *raison d'être* of performance assessment frameworks and in recent years, an increasing volume of work and attention has been devoted to the measurement of performance within health systems at the country level, with an aim to improve them, but not necessarily to change or influence policy.

2.14 Linking performance assessment frameworks to policy development

The adage goes that performance assessment impacts policy development. However, the extent of this influence is debatable as the evidence base is tenuous and more research is needed to explore this relationship. This section reviews this evidence.

2.14.1 The evidence base

The literature provides ample empirical evidence on the link between performance assessment and measurement and improvement of health systems and health care (Loeb, 2004), (Smith, 2005). The advent of performance measures and the development of performance indicators in health care has been one of the singular most important tools for improving the performance of health care in many areas of clinical practice (Fitzpatrick, 2009).

The tools used for the measurement of clinical care have been extrapolated to the population wherein most health systems now have methods of collecting and analysing performance data at population level to appraise how well the health system is fairing. Various countries have incorporated performance measurement into service frameworks, with clear targets and deliverables. This was the case, for instance, in England, where, as described previously, in 2001 the Department of Health for

England launched the National Service Framework (NSF) programme, which was meant to transform the way services are delivered for patients by the National Health Service (Chapman & Adam, 2001).

On the other hand, performance measurement was not without its challenges and drawbacks. Mannion and Braithwaite (2012) identified four main challenges whilst examining the unintended consequences in implementing various performance measurement systems. These pertained to erroneous measurement, creating perverse incentives, imposing sanctions incorrectly and the creation of an environment of mistrust and suspicion. Moreover, there is evidence to show that, depending upon their agendas and priorities, health care organisations can influence the performance of the health system as a whole (Hauck, Rice & Smith (2003). This, in itself, is not a negative aspect, unless there is lack of alignment between the objectives of the health system with that of its constituent parts.

Nevertheless, given that the main focus of the second part of the research deals with how health system performance assessment frameworks influence policy making, there seems to be little experience and hence, evidence in the literature on this particular aspect of performance assessment.

Smith and Busse (2009), in their volume on Performance Measurement for Health System Improvement, examine how health policies and target setting may, and indeed do, influence the manner in which performance measurement is viewed and structured. This is evidently obvious since to create and maintain a robust HSPA framework, financial, human and technological resources need to be dedicated for this venture and hence governments and health care organisations need to commit such resources to continually measure their performance. This is more so when one considers the substantial investment required in Information Technology (ICT) systems to routinely collect and analyse the volumes of data that are created through the system. Still, the contrary is not evident, in that performance assessment can and should influence policy development.

Veillard *et al* (2010) opine that whilst international comparisons of health systems are useful for governments to adjust their health policies, performance data still needs to

be integrated into the policy-making process. They cite a few non-European examples of this relationship, one of which is from the Ontario Ministry of Health and Long-Term Care in Canada where there is evidence to show that the Canadians make systematic use of performance information into their decision-making process.

The Ontario authorities identified a core set of health system and local health system performance indicators which are then incorporated into accountability agreements with the Local Health Integration Networks. This is illustrated in the conceptual figure below (Figure 2.6), which shows how comparative performance data is used at various phases of the decision-making cycle within the Ministry.

Step 1 shows the development of the vision and the direction taken for future health policy. Actions and specific strategies are planned along this vision (Step 2), which are then linked to budget planning (Step 3). The actions and their outcomes are then monitored and evaluated against strategic targets (Step 4).

The procedures and outcomes are often monitored and evaluated in the context of resource allocation to ascertain value for money. Finally, based on the results of evaluation, accountability lines are evoked (Step 5) so that institutions and persons responsible for different steps of policy development improve their understanding of their role in health systems and can make changes in their behaviour for improved performance.

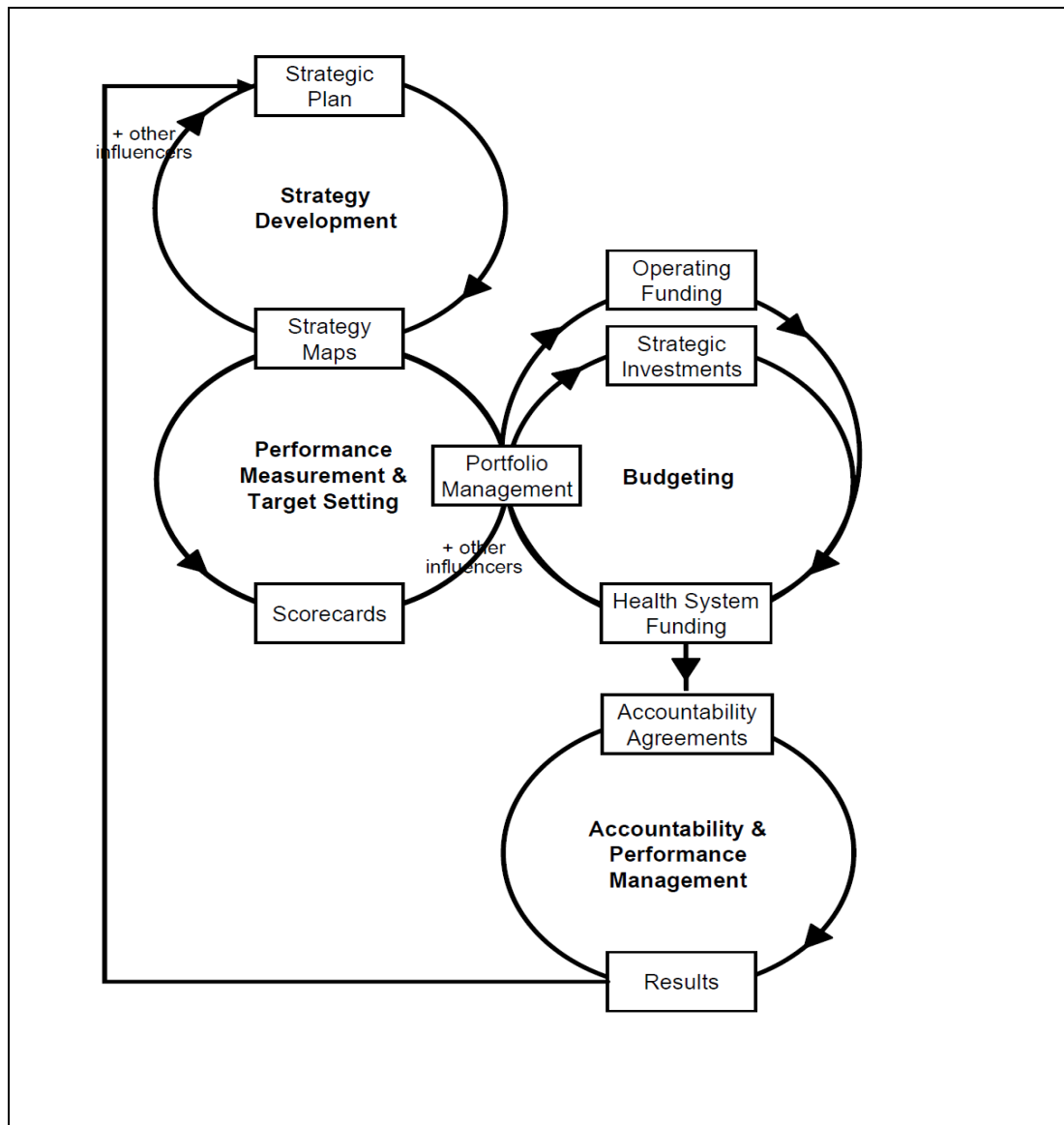


Figure 2.6: A strategy-based performance management framework (Ontario Ministry of Health and Long Term Care)

Source: Veillard, *et al.* (2010).

Performance assessment should be intricately linked to providing the evidence to generate change and reform. Mannion and Goddard (2001) found that, although Scotland had a very well-developed performance monitoring system in place, there is little to show for how this impacted upon changes in the health system.

Similarly for the Dutch, successive publications of their biennial Dutch Health Care Performance Report (DHCPR) have had minimal impact upon policy formulation and priority setting at national level (Westert, *et al.*, 2010), and it is only with their most

recent iteration, after several years, that policy was influenced by their HSPA process (Van Den Berg, et al., 2014).

At the turn of the millennium, the World Health Organisation has already realised that the link between policy development and performance assessment frameworks was weak and consequently launched the Enhancing Health Systems Performance Initiative (EHSPI) as a means to improve and manage performance supported with relevant policies (World Health Organisation, 2001).

The aim was for the EHSPI to feed into the national policy debate, thereby linking evidence to priority objectives and subsequent actions. WHO hoped that, at a global level, EHSPI would enhance the drive towards more robust evidence-base policy making (World Health Organisation, Regional Office for Europe, 2001), however although this initiative was launched in 2003, the author could not find any evidence of its widespread uptake at national or regional level and so its effectiveness remains in doubt.

In July 2012, CION set up an expert panel to provide advice on effective ways of investing in health and as part of this work, the panel drafted a working document on the criteria and framework to be used in identifying priority areas for the assessment of the performance of health systems (Expert Panel On Effective Ways Of Investing In Health, 2014).

At around the same time that the Department of Health for England launched its new manifesto – ‘A First Class Service: Quality in the New NHS’, (Department of Health, UK, 1998), it also announced the National Service Framework (NSF) programme. The approach for the development of NSFs at the time was innovative and drew upon the best of public health art and science in developing, implementing and evaluating practical policies to improve health and health services. This was further consolidated in the subsequent white paper – ‘Saving lives: Our healthier nation’ (Department of Health, UK, 1999b), where the UK Government set out its plan to improve health and reduce health inequalities. The ‘A first class service: Quality in the new NHS’ (Department of Health, UK, 1998) and ‘The National Cancer Plan’ (Department of Health, UK, 2000) introduced NSFs as one of a range of measures to raise quality and

tackle unacceptable variations in health experience and in health care. This experiment was deemed a partial success in that NSFs did show the impact that a public health model can have in policy development, especially after the creation of the UK performance assessment framework and indicators which did, to a certain extent, inform policy development (Chapman & Adam, 2001). However, this was punctuated by overriding political considerations that very often ignored, or at worse dismissed, the evidence to suit the policy agenda of the government of the day.

On the other hand, and on the other side of the Atlantic, the USA has had a long history of publicly reporting data on performance and clinical outcomes. This practice has led to the advancement of robust comparative performance information in the form of ‘report cards,’ ‘provider profiles’ and ‘physician profiling.’ Mannion and Davies (2002) carried out a series of structured interviews with leading experts on the US health system and concluded that in order to inform policy and take the right decisions, indicators need to be robustly developed, involving all stakeholders, in order to understand the needs of the end users, i.e. the patient, public and staff delivering the service at the cold face.

Mannion and Davies (2002, p. 215) state that *‘any national strategy emphasizing comparative data must grapple with how to engage the serious attention of those individuals and organizations to whom change is to be delivered.’* This is perhaps one of the reasons why performance assessment frameworks have not yet had a profound impact upon policy decision taking.

In their recent study on the effects of the UK’s performance assessment framework, Mannion and Braithwaite (2012) concluded that although these frameworks are geared towards providing policy makers and managers with clear, accurate and timely information on the performance of the system or institution, there have also been adverse results. These include poor narrow-minded measurement, perverse incentives and misplaced sanctions, breaches of trust and also what Mannion and Braithwaite (2012, p. 569) term as the *‘politicisation of performance systems.’* They conclude that whilst there is no doubt as to the efficacy of performance measures to improve the efficiency and quality of services, their wider applicability in informing policy

development and using HSPA as a strategic decision-making tool should be viewed with caution.

In a policy piece, Brian Salter (2007) surmises that, in the UK again, there is a lack of consensus between the State and the professional on which policies should take priority. This ‘struggle for the control of the agenda setting, formation and implementation stages of the policy process’ has resulted in little engagement between government and professional bodies, leading to the generation of two separate but parallel policy streams. This was not the experience of Langlois *et al.* (2016) where, through different approaches, policy makers and researchers were brought together in Mexico, Nicaragua, South Africa and Cameroon resulting in an increased awareness of evidence-based policy making and improved quality programmes.

Mannion, together with Goddard, believed that delineation of priorities and performance monitoring has little purpose if relevant actors do not have the power to use the results to affect change (Mannion & Goddard, 2001). In a study on performance management in Scotland, which was one of the first European countries to introduce performance indicators and assessment, the authors found that performance monitoring had little impact on health system behaviour because of a lack of accountability mechanisms and the associated incentives to prompt appropriate responses on the part of practitioners, managers and organisations. The same can be said of national health system performance frameworks, where the biennial Dutch Health Care Performance Report (Westert, *et al.*, 2010) has been slow to inform the policy debate and national priority setting.

In conclusion, Smith, *et al.*, (2012, p. 39) contend that ‘*a primary purpose of performance information is therefore to promote transparency throughout the health system and to enable stakeholders to hold actors within the health system properly to account.*’ They propose a model to account for the feedback loop between performance assessment and policy change, depicted in Figure 2.7:

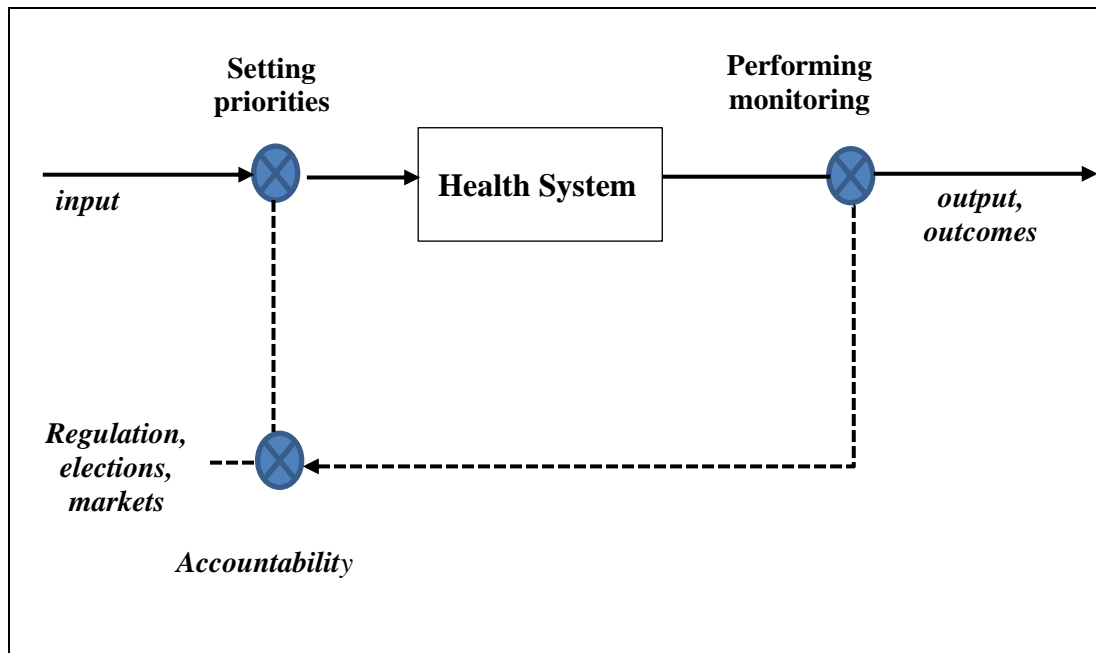


Figure 2.7: Feedback loop model between performance assessment and policy change

Source: Smith, *et al* (2012, p. 38)

Through the model shown in Figure 2.7, performance information on outputs and outcomes can be fed back to the policy maker and management, in the first place to ensure accountability for delivery of the agreed targets and secondly, for re-setting priorities and developing policy further. This feedback loop is the missing link that needs to be closed to fulfil the true purpose of a performance assessment framework.

2.14.2 The policy cycle

One of the main objectives of a health system is to bring about health improvement to its population. However, the manner in which this is achieved varies tremendously, allowing for room for development (Westert, *et al.*, 2010). Such development should be grounded in evidence, certainly from an academic viewpoint. Dobrow, Goel and Upshur (2004) and also Niessen, Grijseels and Rutten, (2000) believe that the best available quantitative and qualitative evidence should be used to develop consensus on the main health issues, as well as how to achieve these priorities. This evidence feeds into a policy development cycle where a policy is drawn up, implemented and the impact of the policy is assessed. This is known as the policy cycle, consisting of several iterative steps, depending upon the level of complexity and detail of the policy at hand (Roberts, *et al.*, 2008), (Niessen, *et al.*, 2000), (Collins, 2005).

One possible depiction of a policy cycle is that which was promulgated by Roberts *et al.*, (2008) and presented in Figure 2.8. This cycle portrays a policy decision process consisting of several steps, including problem definition, diagnosis of underlying causes, policy development, political decision, implementation of policy change and evaluation of the impact of the policy change. Evaluation of policy changes post implementation requires additional appropriate measurement mechanisms (Morrato, Elias and Gericke (2007), measurements that are increasingly being supplied through the application of HSPA methods.

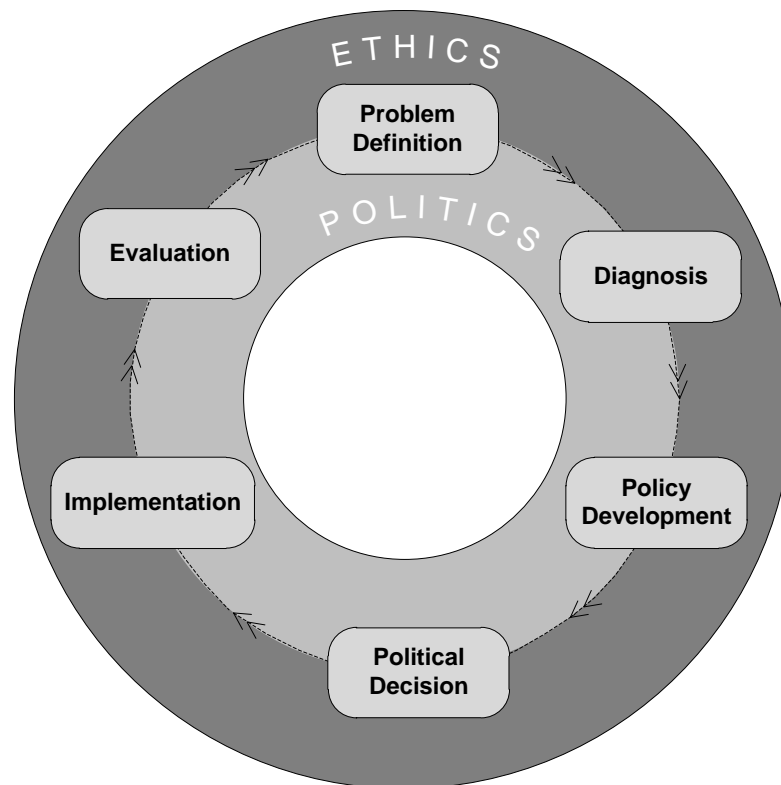


Figure 2.8: The policy cycle (Roberts, et al., 2008)

The literature cites some examples of countries that have adopted the policy cycle as part of their HSPA process (Frenk, et al., 2003). The DHCPR is fulfilling several functions in the rational model of policymaking such as agenda-setting (problem recognition), policy formulation (proposal of solutions), decision-making (choice of solution), policy implementation (putting solution into practice) and policy evaluation (monitoring the results). The DHCPR can ‘rationally’ be placed between evaluation (accountability) and agenda-setting (for strategic decision-making (Van Den Berg, et al., 2014).

2.15 Conclusion

This literature review discussed the development of HSPA as an effective method to assess the performance of health systems as a means to improve service provision and steer policy. It anchored the methodology that was to follow and provided a basis for the ensuing document analysis which continued to build on the evidence gathered from the literature.

CHAPTER 3

RESEARCH FOCUS, AIMS AND METHODS: AN OVERVIEW

“If you can’t measure it, you can’t improve it.”

Peter Drucker

CHAPTER 3

RESEARCH FOCUS, AIMS AND METHODS: AN OVERVIEW

3.1 Introduction

This chapter provides an overview of the methodologies adopted for the various phases of this research, details of which are then elaborated upon in each respective chapter. This study focused upon the development of a national health system performance assessment (HSPA) framework for Malta and considered the impact such frameworks have upon policy development. There were three phases of the study as shown in Box 3.1:

Box 3.1: Phases of research process

Phase I	Document Analysis
Phase II	Development of Malta's HSPA Report
Phase III	Relationship between performance assessment and policy making

3.2 Research questions

The research questions which have been addressed in this study are presented in Box 3.2.

Box 3.2: Research questions

Topic	Main Research Question	Subsidiary research questions
<i>Methodology for HSPA development for Malta</i>	1. What is the most appropriate method for developing a health system performance assessment model for Malta?	1a. Which methods can be employed for its development and implementation? 1b. Which key set of national performance indicators might be the most appropriate for Malta's first health system performance assessment framework? 1b. What is the overall result of Malta's first performance assessment of its health system?
<i>Policy development in relation to HSPA</i>	2. What role, if any, do national health system performance assessment frameworks play in the development of national health policy?	2a. Does the implementation of such frameworks have an impact on, or inform, policy development at a national level? 2b. What is the main use of HSPA today and how can be it better utilised for policy making and service improvement?

3.3 Aim and objectives of the research

The aim and objectives for this study are derived from the research gaps identified in the literature review. They comprise two main elements, the first being the development of a HSPA Framework for Malta and the second to study the relationship between HSPA and policy making.

3.3.1 Aim of the research

The aim of the research is outlined in Box 3.3.

Box 3.3: Main aim of research project

The overall aim of the study is to develop a national health system performance assessment framework for Malta and to examine the impact such frameworks have upon policy development.

3.3.2 Objectives of the research

Based on the literature review undertaken, this study will focus upon the research objectives outlined in Table 3.1.

Table 3.1: Research objectives

PHASE	CHAPTER	STAGE	RESEARCH OBJECTIVE
Phase I	Chapter 4	Document Analysis	<ol style="list-style-type: none">1. To understand the methodologies employed for the development of health system performance assessment models.2. To elicit documentary and historical evidence on the impact of performance assessment on policy development.
Phase II	Chapter 5	Malta Health System Performance Assessment Framework	<ol style="list-style-type: none">3. To develop a national health system performance assessment framework for Malta.4. To develop a set of key national performance indicators for the Maltese health system.5. To produce and present the results of Malta's first performance assessment of its health system.
Phase III	Chapter 6	Policy Development in relation to performance frameworks	<ol style="list-style-type: none">6. To investigate whether there is a relationship between the introduction and implementation of national health system performance assessment frameworks and national policy making and reform.7. To evaluate to what extent evidence has a bearing upon the development and adoption of policies and to understand which factors (other than evidence and performance data) impact and inform policy and decision making.

The methodology follows, to a large extent, both the research questions and the research objectives, as the thesis is designed and structured around meeting these objectives and thus answering the research questions. Hence the study will be carried out in three phases and the detailed methodological approach will be explained in each respective chapter, an outline of which is presented in Appendices 2a, 2b, and 2c.

3.4 Research process

Figure 3.1 shows the research journey undertaken in the course of this thesis.

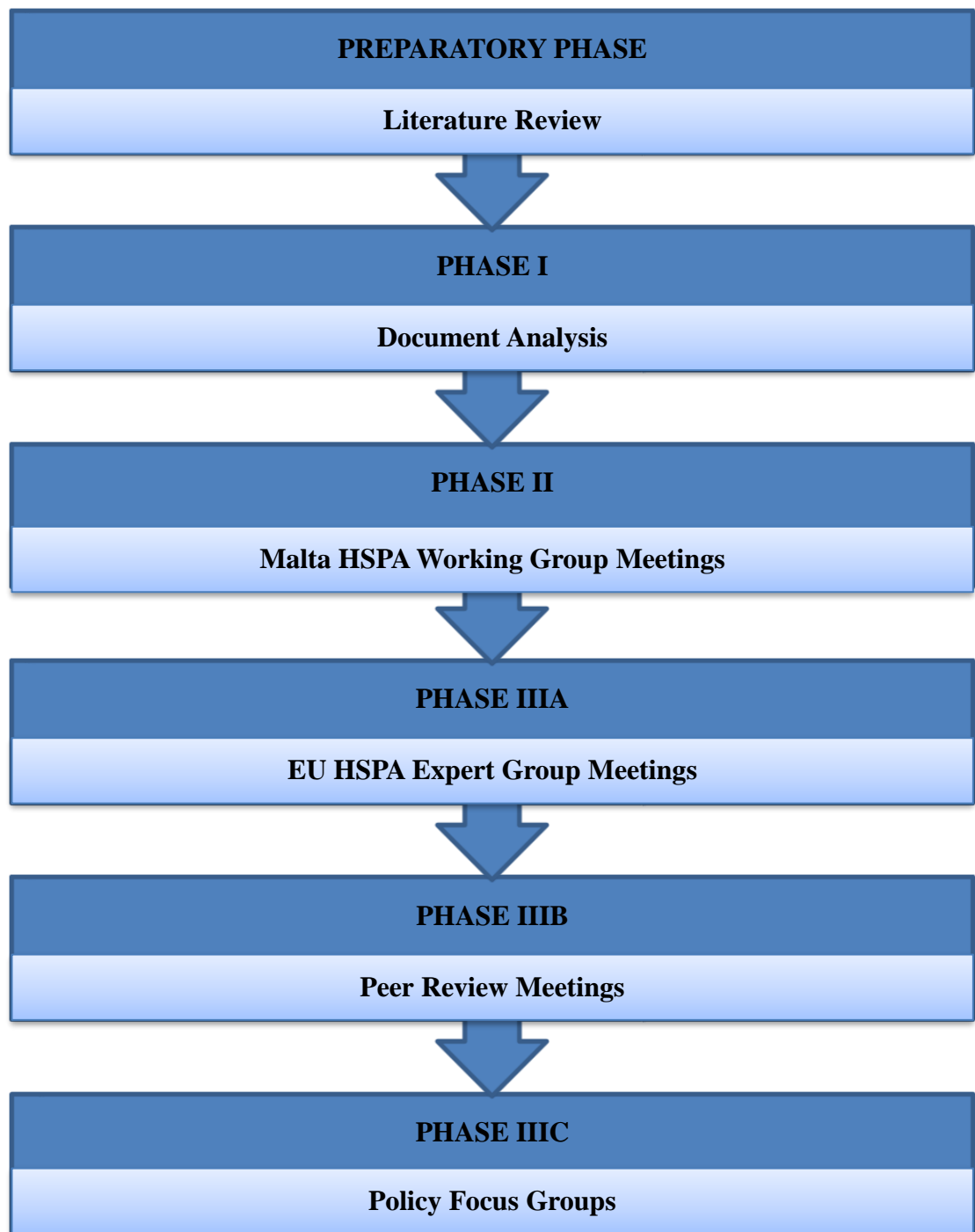


Figure 3.1: Research phases

The Gantt Chart (Table 3.2) provides a timeline of this study's stages (2011 - 2018).

Table 3.2: Timeline adopted for this study

	Chapter	2011	*2012	2013	2014	2015	2016	2017	2018
Literature Review [#]	2								
Phase I - Document Analysis	4								
Phase II - Malta HSPA Working Group	5								
Phase III - EU HSPA Expert Group	6								
Discussion and Conclusion chapters	7 & 8								
Write up	All								

* Author was granted a suspension for one year in 2012 due to personal family health reasons.

Literature was updated throughout research project.

3.5 Phase I: Document analysis

Document analysis is a method by which the researcher analyses, investigates, interprets and categorises existing material, i.e. material and data that is already available (Bowling, 2014). Buse, Mays & Walt (2012) add that document analysis uncovers evidence that predicts or illustrates policy development and reforms.

Following a review of the literature (October 2011 to mid-2014, with updates through to 2017), the author undertook a document analysis (2013 to 2015) which informed the research process of the next two phases. This was performed to gain a deep understanding of the various models and methodologies that were applied for the development of health system performance assessment models in Europe and internationally. The document analysis was also carried out to gather preliminary documentary and historical evidence on the relationship between performance assessment and policy making, especially evidence on the bearing that HSPA models

may have had upon the elucidation of policy and initiation of reforms in the health sector.

Document analysis is a key qualitative method used either in combination with other methods as part of a methodological approach, such as in data triangulation, or as a stand-alone method. Documents of all types assist the researcher uncover meaning, develop understanding, and discover insights relevant to the research problem. *'Document analysis is a systematic procedure for reviewing or evaluating documents, both printed and electronic'* (Bowen, 2009, p. 27). Corbin and Strauss (2008) explain that, like other analytical methods, document analysis requires close scrutiny and elucidation of the data in order to elicit meaning, gain understanding, and develop empirical knowledge. The focus of the analysis should therefore provide a critical examination, rather than a mere description of the documents. The analytic procedure entails yielding data in the form of references, quotations, citations, or entire passages, which are then organised into themes, categories and cases through various methods of data analysis, such as content analysis (Labuschagne, 2003).

The basis of a document analysis presupposes that the text and images contained within the document under examination have been recorded without the researcher's intervention. Whilst documents are intended to be read as objective statements of fact, nonetheless they also contain 'in between the lines' messages and nuances that reveal the author's hidden thoughts and intentions when producing the document.

3.6 Phases II and III: Participant Observation

Following the completion of the documentary analysis, a three-year participant observation journey commenced where the author was given the dual opportunity to participate in two key fora.

In **Phase II**, the author was tasked with the coordination of the proceedings of a national working group set up with the mandate to develop Malta's first health system performance assessment framework, which led to the production of Malta's first ever performance assessment report (2014-15).

Phase III consisted of the author's active participation on the European Commission Expert Group on HSPA (2014-16). Amongst other functions, this group was tasked with examining the link or relationship between HSPA and health policy development in the European region. This phase involved the author's participation in eight EU Expert Group meetings, three peer review meetings and two policy focus groups, all part of the HSPA process at EU level.

This participant observation experience allowed the author to undertake further in-depth research to confirm or refute the findings from the document analysis. Whilst the analysis of documents presented a rich source of information, a deeper understanding of the complexity of the development of HSPA frameworks and on the interaction between policy making and performance assessment was needed. Furthermore, country specific evidence was also required to complete the picture since most policy is generated at country or local level.

3.6.1 Type and level of participation: From observatory to participatory to action research

The researcher's participation in the Malta HSPA Working Group and in the EU HSPA Expert Group and subsequent peer review meetings and focus group meetings was possible due to his membership on these groups. This fits into a participant research methodology. However, the author's membership and active participation, as a research opportunity, does not follow the traditional participant observatory route. Gold (1958) suggested four observation traits that are commonly referred to in the participant observation process. These range from 'complete participation' (but complete concealment) to 'the participant as an observer,' to the 'observer as a participant' and finally, on the other end, as a 'complete observer.' This classification denotes the traditional viewpoint of participant observatory studies, but it does not fully correspond with the researcher's role on these groups. The author was a complete participant, but his research was also known to the other members of the groups and so this does not fit neatly into the role of the 'complete participant' since this also denotes full concealment of the research process.

DeWalt and DeWalt (2011), Spradley (1980, pp. 58-62) and Adler and Adler (1987) provide alternative viewpoints to classifying participant observation, using

membership roles as a proxy of interaction between the researcher and the participants. Spradley (1980) classifies these roles as ‘non-participation,’ ‘passive participation,’ ‘moderate participation’ and finally, as ‘complete participation.’ Adler and Adler (1987) advocate a similar classification, using the type of membership as their focus, going from ‘peripheral membership,’ to ‘active membership,’ and ‘full membership.’ Many times, the type and level of interaction with or participation in a group is dependent upon the objectives of the study, the nature of the group and by the participants in the study (DeWalt & DeWalt, 2011), (Gustafson & Hertting, 2017).

Whilst the above categorisations are important from a theoretical point of view, they may also be considered somewhat ‘arbitrary’ and, thus, may not always necessarily represent the reality that the researcher faces when carrying out participant research Potvin, Bisset and Walz (2013, pp. 433-441). Perhaps these classifications are important from an ethical and purist (in terms of methodology) viewpoint since the type of interaction between the researcher and the participants poises varying ethical and methodological challenges, usually related to the level of concealment of the research process from the participants. However, as Whyte (1979, p. 5666) observes, the most important feature of participant research is the collaborative effort, in whichever form or shape this takes. A mature and dependable interface between researcher and participants is an essential prerequisite for building solid relationships and in so doing, gaining access to the richness and fullness of information that the participatory process is meant to provide (Silverman, 2013, p. 214). This level of trust is also essential to complete the transition from participant observation to participant action.

3.6.2 The reflexive nature of participant action research

Participant action research (PAR) combines the research prerogative with that of participating in the research setting whilst contemporaneously affecting or influencing the course of action on the subject area being studied (Kemmis, 2008, p. 121). Some argue that this is not a distinct research methodology but a ‘research style’ encompassing many of the other research practices and provides a ‘*pluralistic orientation to knowledge making and social change*’ (Chambers, 2008, p. 297–318). It is, nonetheless an approach that favours the involvement of research partners in the ‘*knowledge-production process*’ (Bergold, 2007, pp. 57-66), where the researcher

attempts to integrate the three aspects of this approach, that of participation, action and research (Chevalier & Buckles, 2013, pp. 9-10).

PAR assumes a collective yet self-reflective approach where both the researcher and the participants actively partake in the research process. They collectively seek to understand the phenomenon under study with the aim of not only advancing knowledge on the subject but in the process, also seek to institute changes that are beneficial (Cook, 2012). However, in PAR, there has always been a tension between the emphasis placed on the collaborative effort versus the action and change elements of PAR (Kemmis & McTaggart, 2005, p. 563). This pendulum seems to swing back and forth over time, depending also upon the research project under consideration.

On the other hand, the reflective element is a constant where Baum, MacDougall and Smith (2006, p. 854) states that the '*the reflective process is directly linked to action, influenced by understanding of history, culture, and local context and embedded in social relationships.*' Whilst the immersion of culture and history may not seem attuned to the subject area of performance assessment, they are, however, important aspects of policy making as the document analysis has demonstrated.

During the author's three-year participatory experience, first as part of Malta's National Expert Working Group and then as a member of the EU HSPA Expert Group, he had the chance to interact, discuss, participate and mould decisions and influence the direction taken in these groups. Since this was an iterative and rather lengthy process, he had the opportunity to reflect upon the deliberations of each meeting, of reviewing the documentation and reports that ensued from this process and of providing feedback. This reflexive process allowed the author to gain a profound insight and understanding into the subject matter and also into the thinking of his colleagues and their actions in this regard. A reflexive mindset is deemed important to fully grasp the various platitudes and complexities of HSPA and policy making and constitutes an essential component of the ethnographic experience (Lichterman, 2017).

Moreover, the author's background, perspective and reflections certainly shaped the research agenda. As a public health physician with several years of senior

management and policy experience at both national (Maltese) and European level, he was well placed to observe and extract the information of a complex nature as that generated by the HSPA and policy making process. He was well attuned to the intricacies of local and European politics and his training proved useful in understanding and grasping the highly technical nature of performance assessment. However, he was also aware that this ‘baggage’ also influenced his thinking, the data which he collected and more importantly the interpretation of this data for research purposes.

Whilst most of the information was straight forward and not necessarily open to interpretation, some more complex issues and delicate subjects required further in-depth discussion and insight. For this reason, the author ‘retained’ a set of ‘hidden’ but trusted colleagues around him who were knowledgeable in the topics at hand and with whom he could confront his ideas and discuss and argue matters that were both sensitive and complex. This ensured as much as an unbiased approach to data collection and analysis. Nonetheless the author was also aware of his vested interest in participating in these fora in seeking to complete his thesis as quickly and smoothly as possible.

Participant observation implies the production of fieldnotes and the extraction of other material from the proceedings of the various meetings and fora that the author participated in. Whilst the author produced his own meeting notes and observational material, given that numerous documents and reports were presented in these meetings, these were also utilised as a source of data for analysis. The collation and interpretation of these documents required a consistent and standardised approach due to the possibility of observer and interpretation bias. Given the author’s intimate immersion into the research milieu, his observations and interpretations may have been swayed by the relationships and friendships shaped over the course of the three years. Silverman (2013, p. 299) postulates that methods such as fieldnote conventions and inter-coder agreement go some way to reduce such biases and instil a modicum of objectivity into the data collection and analytical process. Whilst the author attempted to emulate these conventions, since he was working on his own, inter-coder analysis was not possible.

3.7 Analytical underpinnings

This section provides an overview of the analytical aspects of the methods outlined before. It includes explaining the benefits of triangulation and mixed methodology as well as explains the data analytical process.

3.7.1 Triangulation of methods

The synergistic combination of different methods provided a robust interpretation in response to the research questions. The combination of methodologies in the study of the same phenomenon added strength to the findings and their interpretation (Denzin, 1970, p. 291). By drawing upon multiple sources of evidence and methods, this approach sought convergence and corroboration using different data sources and methods, including those of document analysis, participant (action) research and focus groups (Yin, 1994). Eisner (1991, p. 110) contended that triangulation attempts to provide '*a confluence of evidence that breeds credibility.*' This reduces the possibility of an artefactual finding or potential bias as a result of using only one method to study the same phenomenon (Pope, et al., 2007, pp. 95-101).

3.7.2 Mixed methods

Phase II of the study adopted a mixed methods approach. The choice of method was consistent for this type of research project, wherein it consisted of both qualitative and quantitative techniques over multiple stages with several inputs and outputs and many players participating at various interludes of the research process. 'Mixed methods' is not simply the *ad hoc* combination of qualitative and quantitative methods. It is the planned mixing of methods at a pre-determined stage of the research and hence this methodology is incorporated into the research design from the start (Kroll & Neri, 2009, pp. 31-49). Therefore, mixed methods research collects both qualitative and quantitative data in one study and integrates these data at some stage or at different stages of the research process.

A mixed method was deemed appropriate for the extraction and analysis of the data and information to develop a meaningful and robust HSPA framework for Malta. In this case, a Mixed Method Multiphase (or Multistage) Design was proposed due to the developmental nature of the research, where the results of one stage of the analysis

informs the subsequent stage and so on. The successive data collection over multiple phases is carried out sequentially such that the one strand (qualitative or quantitative) appraises the next strand of analysis. Greene (2007, p. 148) describes this as '*the importation of mid-stream results from the analysis of one data type into the analysis of a different data type.*'

3.7.3 Applied Inductive Thematic Analysis

Applied Inductive Thematic Analysis was the main analytical approach employed for Phase I and III of the study. According to Guest, MacQueen and Namey (2012, pp. 15-16), this process consists of reading through textual and other types of data, identifying themes in the data, coding the themes and then interpreting the structure and content of the themes. They describe applied inductive thematic analysis as '*a rigorous, yet inductive, set of procedures designed to identify and examine themes from textual data in a way that is transparent and credible.*' Moreover, Elo & Kynga (2008, pp. 107-115) explain that the inductive approach is preferred over the deductive approach when there is little former knowledge about the phenomenon being studied or where the knowledge is fragmented. Hence the inductive approach was used to open up new lines of enquiry and, following the generation of themes and sub-themes, a framework was created for data analysis.

For the purpose of triangulating the findings, the use of the same analytical technique for the Document Analysis and Participatory Observation phases of the study was considered appropriate and more manageable, especially since the latter phase (participative research, peer review and focus groups) have built upon (and also expanded on) the same themes and sub-themes generated by the earlier document analysis.

3.8 Research paradigms

This section provides a brief explanation of the ontological and epistemological orientations of the study. The ontological aspects refer to the nature of the reality that the study is looking into (Hudson & Ozanne, 1988, pp. 508-521). The qualitative nature of the study embraces the ontological dimensions of multiple truths and realities where each researcher views his research from his individualistic personal perspective

(Lincoln & Guba, 1985). Sometimes these beliefs or perspectives are shared and corroborated by multiple researchers and a deeper understanding of the subject is obtained. The qualitative element of this research is undertaken by a document analysis and by participant observation. For the purpose of this study, document analysis is viewed as positivist (Guba, et al., 2018), since an element of objectivity and a rational and logical approach is adopted for this type of research. On the other hand, the participant observation part of the study is considered interpretivist in nature, since multiple interpretations and multiple realities are reviewed as part of the author's emersion into the context he is studying. The knowledge acquired in this phase is socially constructed rather than objectively determined.

The epistemological nature of a study refers to the relationship between the author as researcher and the reality he is studying and how this reality is captured or understood (Carson, et al., 2001, pp. 4-15). In this sense, document analysis could be considered inductive in nature, where knowledge already available is extracted. The participant observation and action research parts of the study adhere to a constructivist approach according to the definitions provided by Bourgeault *et al.* (2013, p. 438). This approach places the emphasis on the constructive aspects of knowledge generation, where the data obtained through these methods are viewed in a social, political and historical context.

Applied inductive thematic analysis comprises a mix of various epistemological orientations, from grounded theory, to positivism, interpretivism, and phenomenology. It is considered to be mainly positivist in its approach, but it is also aligned to interpretive consideration. It is positivist in that assertions are required to be supported with evidence (textual analysis) but the methods and processes can also be used in an interpretive analysis (Guba, Lincoln & Lynham (2018).

Unlike grounded theory which is anchored in theory building, applied thematic analysis is not restricted to this objective alone / *per se* but offers a more practical or pragmatic approach, which is conducive to the area under research since it explores the management and policy aspects of performance assessment. Likewise, whilst interpretive phenomenology generally focuses on the individualistic, subjective human experience, the focus of an inductive analysis can be broader and include

social, political, economic and cultural manifestations as well, which, again, is more suitable for this study. On the other hand, although more comfortably applied within a positivist framework, many of the principles of applied thematic analysis can also be incorporated into an interpretive analytic enterprise. This ‘mixed bag’ approach was thought to align itself well with the complex and multifaceted areas of performance measurement and policy development.

3.9 Contribution to research and policy development

Each of the above-mentioned objectives aimed to cover a gap in the current academic research, as well as address specific policy imperatives. The development of a national performance assessment framework for Malta not only laid the groundwork for future performance measurement in Malta but also contributed to the body of European and international knowledge on the appropriate methodological process used for this type of endeavour.

Such a methodology could be compared and used to inform the development of other performance frameworks, especially for small states, and is also particularly apt at this juncture due to the increasing interest within EU circles to create a Europe-wide, standardised performance assessment framework. Moreover, the results emanating from measuring the indicators within the framework are comparable and useful for benchmarking with other countries, opening the path for Malta to partake in numerous international comparative studies in the future.

Although significant research has been carried out on the link between performance measurement and service improvement, the same could not be said of the link with policy development. This study provided a unique insight into the relationship between national performance frameworks and the development of policy and implementation of reforms at national level. This association is important to consolidate and expand the use of performance assessment frameworks whilst ensuring that policy making is grounded increasingly more in evidence rather than in other extraneous factors.

3.10 Exclusions

This study focused primarily upon performance information as extracted specifically from health system performance assessment frameworks. Although the initial intention was to exclude performance data and information derived from other sources, the document analysis and the subsequent participatory research component of the study uncovered a raft of other sources of performance information that influence policy making and so these were also referenced. Nonetheless, for the purpose of this research, performance information was taken to mean information derived exclusively from performance indicators.

The study did not delve into the relationship between performance assessment and performance or service improvement. Enough empirical evidence in the literature dealing with this relationship existed and therefore, it was deemed superfluous for the author to delve into this relationship as the study would not have contributed any new knowledge in this area.

3.11 Conclusion

This chapter provided an overview of the varied methods employed in this study, spanning both qualitative and quantitative designs through the implementation of a document analysis and ethnographic experience over 3 years. The next chapters discuss these phases in more detail.

CHAPTER 4

PHASE I - DOCUMENT ANALYSIS

“Documents create a paper reality we call proof.”

Mason Cooley

CHAPTER 4

PHASE I – DOCUMENT ANALYSIS

4.1 Introduction

Chapter 4 describes the methodology, results and discussion of the document analysis. This was carried out as a prelude to the participatory observation part of the author's research. The *raison d'être* for choosing this method was explained in Chapter 3. Although document analysis may be used on its own, in this case it was combined with the analysis carried out in Phases II and III and contributed towards the methodological triangulation of this study. Thus, the document analysis served as a starting point in scoping the available evidence on the development of HSPA models and the utility of using performance assessment methods for policy making.

4.2 Objectives of Phase I

The objectives for this first phase of the study were:

1. To understand the methodologies employed for the development of health system performance assessment models.
2. To elicit documentary and historical evidence on the impact of performance assessment on policy development.

4.3 Method

Bowling (2014) cites several sources and types of documents that could be used for a document analysis. These include policy reports, legislative papers and acts of parliament, government publications, minutes of meetings etc. The author used Scott's list of criteria to ensure a quality-controlled process in choosing and interpreting the documents sourced (Scott, 2014). These pertain to *authenticity*, in terms of the validity of the source of the document; *credibility* as to whether the data is typical of its kind; *meaning*, referring to the clarity and unambiguousness of the

information; and *representativeness*, as to the document's claim to be able to represent the views of other sources.

For the purpose of this exercise, documents were principally sourced from various databases through the internet but also from public and academic repositories of publications, such as libraries and various archives at the disposal of the author and thus, in the public domain.

Since performance assessment as a discipline and the development of HSPAs were effectively launched in 2000 after the publication of WHO's World Health Report (World Health Organisation, 2000), this date (i.e. 2000) was the start date used to source the documents in question, with the exception of a few seminal documents published before 2000. Most documents were in the English language, except for documents in other languages which the author could access and understand. No translation techniques were employed.

4.3.1 Source and types of documents

Documents originated from several different sources. These included international organisations, national authorities and ministries, research and academic organisations, as well as meeting notes from official legislative and policy bodies.

A full compendium of documents accessed and used for this analysis can be found in Section B of the Bibliography, a summary of which is given in Table 4.1. Over 250 documents were reviewed, from which 159 documents were included in the analysis. This initial sifting of documents was based on a rapid review of each document covering the subjects dealing with either performance assessment, HSPA, evidence-based policy making, performance indicators and performance related political and legal factors.

Table 4.1: Sources of documents

Source	No. of documents
World Health Organisation	37
European Commission, including European projects and programmes	11
European Observatory on Health Systems and Policies	28
Organisation for Economic Co-operation and Development	16
National Ministries, Departments, Authorities and Agencies	24
National Parliaments and other legislative and policy bodies	6
National HSPA reports and other performance and quality documents	5
Proceedings and meeting notes from conferences, seminars and other fora	11
Bridge Project	4
Miscellaneous	17
Total	159

The collation and analysis of documents was carried out contemporaneously. Sampling and data collection procedures in an applied thematic analysis context is an iterative process, and this technique allowed the author to be guided appropriately to source the most relevant documents and only when the data analysed from the documents generated a clear and consistent picture in relation to the research questions was it deemed sufficient to consider the collection and analysis as complete. This was an exercise in diminishing returns, where little new information was generated as more data was collected and analysed, similar to ‘data saturation.’

4.3.2 Examination of documents

A document analysis worksheet was produced for each document that was reviewed and analysed. The worksheet contained a standard format with information relevant to the document under review. This included the title, author and organisation responsible for the publication, its intended audience, any potential biases or conflicts of interest of the authors, key words, the reason why the document was written in the first place, a summary of the contents of the document and its main conclusions, and finally any evidence of the link between performance assessment and policy making. As Patton (2015, p. Module 67) contends, it is important to not only analyse the

contents of the document but also understand the context and reasons why it was written. This is especially so for documents of a policy or political nature. Two samples, as examples, of the Document Analysis Worksheets can be found in Appendix 3a and 3b. A total of 159 worksheets were consequently produced. These are available for review but have not been appended due to the volume of the material. Once the details of each document were inputted into its respective document analysis worksheet, it was classified into one of several types of documents (Table 4.2)

Table 4.2: Types of documents

Type of Document	Number
Articles	6
Books	20
Country & National Reports	34
Media & Communications	2
Meetings and Presentations	18
Official policy & legal papers	27
Position and policy papers	18
Reports	32
Miscellaneous	2
Total number of documents	159

Each document was given a unique number identifier and uploaded onto Nvivo® 11 for coding. Ideally, document analysis involves initial sifting or skimming (superficial examination), close-reading (thorough examination) and interpretation. However, given that documents of various sizes and types were reviewed, this iterative process was not always feasible. Depending upon its size, relevance and source, the author employed two different methods for coding the text.

Shorter documents (up to 20-30 pages) and longer documents of significant relevance and importance were read and coded in full. For other longer documents, a text search for key words (Box 4.1) was carried out. The surrounding text of these key words (from a paragraph to a few pages) was then reviewed and coded if relevant. These key

search words were similarly used in other studies, especially those carrying out systematic reviews (Garrido, et al., 2008, pp. 53-74).

Box 4.1: Key search words for document analysis

Performance

Performance assessment

HSPA

Evidence

Policy

Indicator

Political

Legal

4.3.3 Modelling of Thematic Analysis

The author reviewed the selected data and generated codes and categories, uncovering themes pertinent to the research questions. As Charmaz (2006, p. 121) indicates, '*by engaging in theoretical sampling, saturation and sorting, you create robust categories and penetrating analyses.*' Codes and themes were generated from the data using Nvivo® 11 to support the coding process. To ensure consistency and strengthen the validity of the process, all data was coded directly by the author (Frost, et al., 2010), although some authors recommend the use of multiple coders to enhance inter-rater reliability of the study.

As codes emerged, these were clustered into natural groupings or categories, leading to the generation of categories, main themes and sub-themes. Points of convergence or divergence were recorded as this enriched the data analytical process, whilst exceptional occurrences were also documented to reflect the variety and complexity of the arguments as they emerged during the analysis.

As the main core themes and sub-themes came into shape, several iterations of a conceptual framework were devised and used as a sensitising tool on new themes as they emerged. The development of the coding structure was only completed when

‘the point of theoretical saturation was reached’ for each theme and sub-theme (Kyratsis, et al., 2014), (Dey, 1993, p. 276), (Graneheim & Lundman, 2004).

The document analysis generating the first iteration of a model comprising 6 categories, 13 main themes and 45 sub-themes. This preliminary model is depicted in Figure 4.1 and was used to illustrate the results of this chapter, as well as to generate the discussion surrounding this first phase of the study. This model was further adapted after the analysis of the participatory research phase was completed, generating an additional 3 main themes and 18 sub-themes, where a final model was produced. This is elaborated upon in Chapter 6.

Moreover, apart from the models cited above, Table 4.3 shows all the themes generated by the document analysis and the participatory research phase, grouped into categories, themes and sub-themes and showing the number of sources and references attached to each theme, as derived from the four main sources of the thematic analysis namely; documents, EU Expert Group meetings, peer review meetings and policy focus groups.

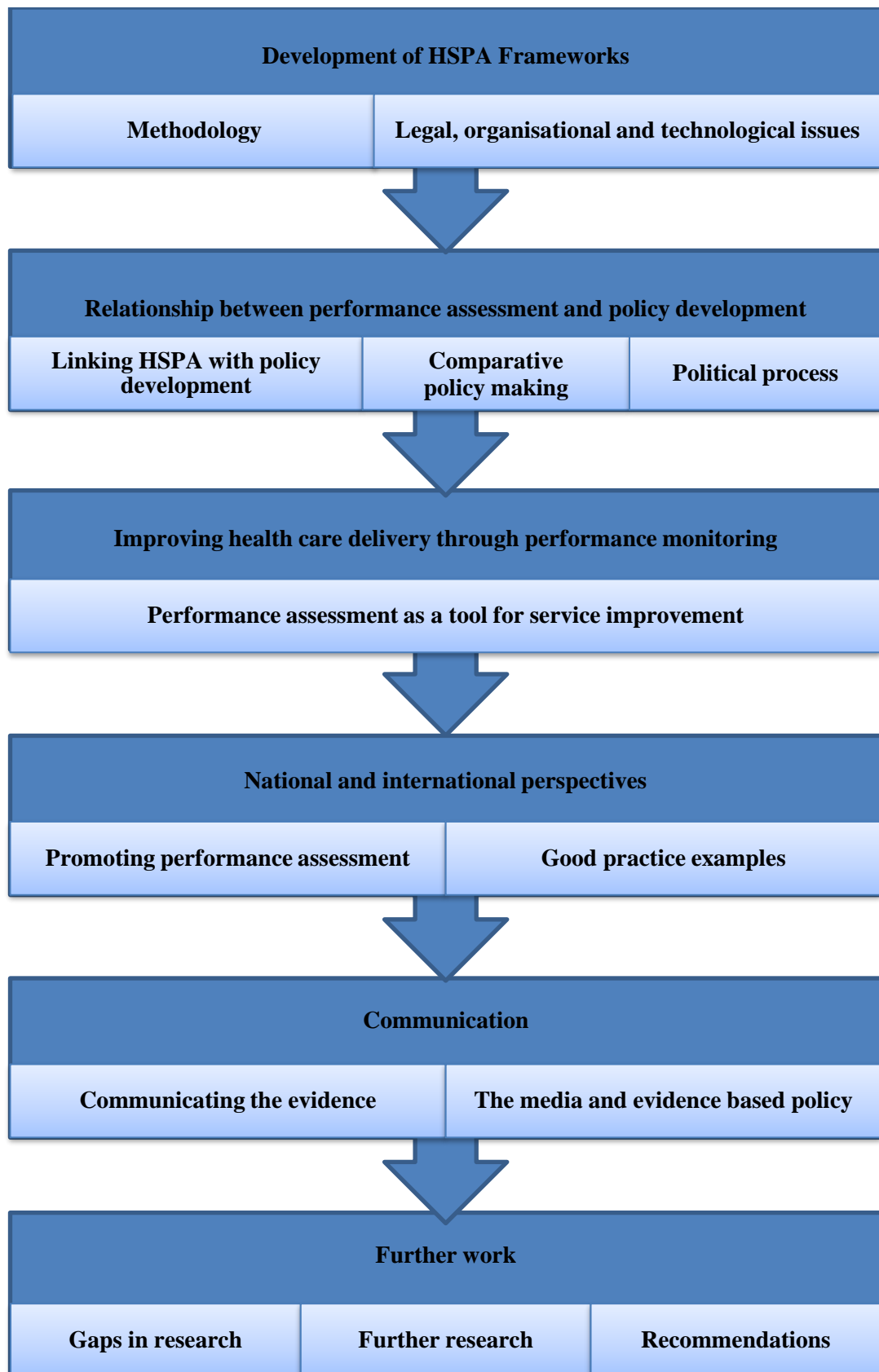


Figure 4.1: Preliminary Thematic Analysis Model

Table 4.3: Distribution of sources and references across the themes, clusters and main topics

Categories	Themes	Sub-themes	Document Analysis		Participatory Action Analysis						Combined Methods	
			Documents		EU HSPA Expert Group Meetings		Peer Review Meetings		Focus Groups (including QoC sub-group)		TOTALS	
		(Sources – SRC; References – REF)	SRC	REF	SRC	REF	SRC	REF	SRC	REF	SRC	REF
Development of HSPA Frameworks	Methodology	Definitions	12	18	1	1			3	6	16	25
		Methods	17	63	14	28	11	18	11	25	53	134
		Process in development of HSPAs and actors involved	17	49	11	18	18	38	7	14	53	119
		HSPA models, indicators and dimensions	43	118	15	22	13	25	9	35	80	200
		Conditions for using performance assessment for policy making	34	80	1	1			1	2	36	83
	Legal, organisational and technological issues	Information technological tools for assessing evidence & for performance measurement	75	217	10	13	11	21	9	24	105	275
		Organisational issues	8	19			1	1	1	1	10	21
		Legal basis for performance assessment and evidence-based policy making	22	52	9	13	5	7	5	8	41	80
		Category totals	228	616	61	96	59	110	46	115	394	937

Table 4.3: Distribution of sources and references across the themes, clusters and main topics (cont.)

Categories	Themes	Sub-themes	Document Analysis		Participatory Action Analysis						Combined Methods	
			Documents		EU HSPA Expert Group Meetings		Peer Review Meetings		Focus Groups (including QoC sub-group)		TOTALS	
		(Sources – SRC; References – REF)	SRC	REF	SRC	REF	SRC	REF	SRC	REF	SRC	REF
Relationship between performance assessment and policy development	Linking HSPA with policy development	*Translating the evidence into policy										
		Evidence in favour or against the link between performance assessment and policy making	30	48	6	6			1	3	37	57
		Use of HSPA frameworks to inform policy	25	104	11	14	9	12	5	9	50	139
		Policy cycle, process and tools	58	185	14	20	6	9	6	10	84	224
		Use of measures and targets to reach policy objectives	16	46	6	7	3	4	6	9	31	66
		Non-health sectors - use of evidence, performance assessment & policy making	21	49	2	2					23	51
		Category totals	150	432	39	49	18	25	18	31	225	537

* Sub-theme included under the umbrella theme - 'Challenges in using performance data for policy making'

Table 4.3: Distribution of sources and references across the themes, clusters and main topics (cont.)

Categories	Themes	Sub-themes	Document Analysis		Participatory Action Analysis						Combined Methods	
			Documents		EU HSPA Expert Group Meetings		Peer Review Meetings		Focus Groups (including QoC sub-group)		TOTALS	
		(Sources – SRC; References – REF)	SRC	REF	SRC	REF	SRC	REF	SRC	REF	SRC	REF
Relationship between performance assessment and policy development (cont.)	Comparative policy making	International and regional cooperation to inform policy	20	34	3	5	7	8			30	47
		International & regional comparisons of performance to inform policy	29	89	14	22	7	12	15	41	65	164
		*Challenges in comparative policy making										
		*Challenges in using performance data for policy making	85	255	16	17	12	18	17	40	130	330
	The political process	Models of policy making	13	31	2	2	2	2	2	2	19	37
		The political prerogative	42	110	8	15	2	3	3	3	55	131
		Reforms	29	67	6	10	2	2	5	6	42	85
		Factors other than evidence and performance assessment that affect policy making	34	129	1	1			2	4	37	134
		Consequences (benefits & dis-benefits) of using performance information & evidence	14	22	1	1					15	23
		Category totals	266	737	51	73	32	45	44	96	393	951

* Sub-theme included under the umbrella theme - 'Challenges in using performance data for policy making'

Table 4.3: Distribution of sources and references across the themes, clusters and main topics (cont.)

Categories	Themes	Sub-themes	Document Analysis		Participatory Action Analysis						Combined Methods	
			Documents		EU HSPA Expert Group Meetings		Peer Review Meetings		Focus Groups (including QoC sub-group)		Totals	
		(Sources – SRC; References – REF)	SRC	REF	SRC	REF	SRC	REF	SRC	REF	SRC	REF
Improving health care delivery through performance monitoring.	Performance assessment as a tool for service improvement	Use of HSPA frameworks for service improvement.	15	27	8	11	5	5	3	7	31	50
		Performance monitoring and improvement.	44	85	3	4	1	2	1	1	49	92
		Accountability	17	36	8	11	8	10	1	1	34	58
	Performance assessment of quality of care	Conceptual framework; quality of care indicators; policy focus group on quality of care.			1	1	3	5	10	46	14	52
	Performance assessment of integrated care	Types and levels of integration; policy focus group on integrated care; Measuring the effects (benefits) of integrated care; Models of policy change incorporating integrated care.			8	25	7	28	8	39	23	92
		Category totals	76	148	28	52	24	50	23	94	151	344

Table 4.3: Distribution of sources and references across the themes, clusters and main topics (cont.)

Categories	Themes	Sub-themes	Document Analysis		Participatory Action Analysis						Combined Methods	
			Documents		EU HSPA Expert Group Meetings		Peer Review Meetings		Focus Groups (including QoC sub-group)		Totals	
		(Sources – SRC; References – REF)	SRC	REF	SRC	REF	SRC	REF	SRC	REF	SRC	REF
National and international perspectives	Promoting Performance Assessment	Promoting performance assessment across Europe and internationally	25	54	11	23	12	20			48	97
		Role of national organisations	56	142	2	4	4	5	2	2	64	153
		Role of international & regional organisations & networks	50	116	11	17	3	4	2	2	66	139
	Good practice examples	Case studies linking evidence with policy change	73	178	1	2	4	6	2	3	80	189
		Examples in the use of HSPA for determining the policy agenda	94	271	3	4	4	5	3	3	104	283
	Country experiences	Austria; Bulgaria; Croatia; Cyprus; France; Germany; Greece; Hungary; Norway; Slovenia; Sweden			39	125	23	57	34	72	96	254
		Category total:	298	761	67	175	50	97	43	82	458	1115
Communication	Communicating the evidence	How to communicate; what and to whom to communicate; alignment	14	60	17	36	5	8	3	12	39	116
	The media and evidence-based policy	The role of the media; public accountability and transparency	16	37	3	4	3	3			22	44
		Category totals	30	97	20	40	8	11	3	12	61	160

Table 4.3: Distribution of sources and references across the themes, clusters and main topics (cont.)

Categories	Themes	Sub-themes	Document Analysis		Participatory Action Analysis						Combined Methods	
			Documents		EU HSPA Expert Group Meetings		Peer Review Meetings		Focus Groups (including QoC sub-group)		Totals	
		(Sources – SRC; References – REF)	SRC	REF	SRC	REF	SRC	REF	SRC	REF	SRC	REF
Further work	Gaps in evidence	Gaps in evidence	9	17					1	1	10	18
	Further Research	Further research	14	19							14	19
	Recommendations	Action by researchers; action by policy makers; action directed at both researchers and policy makers	22	55	1	2	2	3	2	2	27	62
		Category totals	45	91	1	2	2	3	3	3	51	99
CATEGORY TOTALS:												
Development of HSPA Frameworks			228	616	61	96	59	110	46	115	394	937
Relationship between performance assessment and policy development			416	1169	90	122	50	70	62	127	618	1488
Improving health care delivery through performance monitoring			76	148	28	52	24	50	23	94	151	344
National and international perspectives			298	761	67	175	50	97	43	82	458	1115
Communication			30	97	20	40	8	11	3	12	61	160
Further work			45	91	1	2	2	3	3	3	51	99
Overall Totals			1093	2882	267	487	193	341	180	433	1733	4143
		General relevant comments	41	80	1	2	1	1			43	83

4.4 Phase I: Document analysis – Results and discussion

As explained above, each document extracted from the document analysis of the thesis was recorded on an analysis worksheet and given a unique identifier number from 1 to 159. Whilst references from the literature are denoted within the main text, references to documents as part of the document analysis (and in Chapter 6, the documents used in the participatory observation study) are denoted as footnotes. These correspond to the list of data and documents listed in Section B of the Bibliography. Given the qualitative nature of this part of the research, the subsequent sections present the results as well as engages in a discussion of these results.

4.5 Development of HSPA frameworks

The first part of the model deals with the central argument at hand, that of the development of HSPA frameworks. It considers the methodological process of developing HSAs, including the various models at play and the challenges and conditions related to their development and implementation. The legal, organisational and technological aspects and difficulties of performance assessment are also discussed.

4.5.1 Methodology

As seen from the literature review, there is, as yet, no standardised approach towards developing and implementing HSAs (Carinci, et al., 2015). Each country or region has developed its HSA based primarily upon its own contextual needs and objectives. However, there is a general consensus that certain parameters and methodological imperatives need to be met to generate a robust, methodologically sound and high quality HSA (Prinja, et al., 2017).

4.5.1.1 Definitions

Given the wide interpretation promulgated by various HSA models, it is important to first review the definitions used in the documents that were analysed to gauge whether authors are consistent in their usage of the concept of HSA and performance assessment in general. WHO is probably the main authority on defining HSAs.²

² 116 WHO (Europe). Case Studies on HSA. 2012; pg.1.

It uses specific key terms to define a HSPA – *country*; the process of *monitoring, evaluating, communicating and reviewing*; *health system*; *indicators*; *goals* and *strategies*. Despite a lack of a standardised approach towards HSPA, these terms are invariably included in all HSPAs produced to date and guide the construction and implementation of HSPAs across health systems. WHO also contends that a mature HSPA has a number of key attributes. It should be regular, systematic and transparent, and a whole system approach should be adopted. It should not be linked to any reform and health strategy agenda and there should be a constant revision of targets and priorities.³ However, this is not consistent with many other WHO supported HSPA processes in member states where HSPA was always closely associated with the country's national policy agenda and health strategy (Marra, 2017). On the other hand, WHO⁴ continues to state that '*the challenge lies in aligning performance assessment and accountability based on strategy, by cascading performance indicators at the macro, meso and micro levels while recognizing and adapting to the different levels of responsibility.*' This is also the position taken by the EU and OECD.

In linking HSPA with health policy, most HSPA contenders choose not to use WHO's rather narrow definition of health policy, where WHO contends that policy is generated through initiation and delivery of health care, but define health policies as '*decisions, plans and actions that are undertaken to achieve specific health goals within a society,*' irrespective of where these policies originate from.⁵

4.5.1.2 Methods

The document review uncovered an insipidly uniform approach in the development and implementation of HSPAs in various countries, with a few exceptions. This is rather surprising and inconsistent with individual countries' traditional but stoic reticence to develop anything close to a common European or WHO-wide or OECD-wide HSPA framework and methodology. The document analysis also informed the methodological steps adopted for the development of Malta's HSPA, which is congruent with many of the methodologies adopted by other countries. The analysis also confirmed that international experts are invariably brought in and consulted at the

³ 123 WHO (Europe). The European health report 2009. 2009 pg. 142.

⁴ 123 WHO (Europe). The European health report 2009. 2009; pg. 146.

⁵ 11 Mackenbach JP, McKee, M. Successes and Failures of Health Policy in Europe. 2013, pg. 17.

initial stage. This was the case for Georgia, Armenia and Belgium, where several international and WHO experts were enlisted to assist in developing their respective HSPA.^{6,7,8} International input is also deemed important to provide oversight and technical support, especially in ascertaining an acceptable level of scientific rigour.⁹

Most HSPA frameworks are based upon the strategic objectives of the national health system, since the model needs to reflect the country's needs and objectives. This was the case for the Netherlands where their model was based upon their principles of quality of care, accessibility, and affordability.¹⁰ The EU Expert Panel on Effective Ways of Investing in Health reiterate that a conceptual framework is essential to delineate the boundaries of the health system to be assessed, as well as to inform a set of dimensions and allow for the selection of appropriate performance indicators to proceed. This Expert Panel also states that *'a conceptual model would help clarify the relationship between health system inputs, processes, outputs and impacts, as well as contextual factors influencing policy change mechanisms and the ways in which policy changes should be prioritized and evaluated.'*¹¹

The phase of extracting and populating each dimension with performance indicators then follows. OECD, WHO and ECHI have all developed a set of criteria for choosing indicators and these criteria are increasingly being used by countries for their own identification of national indicators. Many of the indicator sets developed by international agencies are repeated iterations on the same theme and proponents in performance assessment are gradually working towards congruence and standardisation across regional and national HSPAs. There is, in fact, significant overlap in the indicator sets used by the EU (ECHI), OECD (Health at a Glance), WHO (Health for All), the Millennium Development Goals, the Parma Declaration on Environment and Health and the Comprehensive Global Monitoring Framework and Targets for the Prevention and Control of Non-Communicable Diseases.¹²

⁶ 152 WHO (Europe). Georgia Health System Performance Assessment, 2009. 2010 pg. 15.

⁷ 150 WHO (Europe). Armenia Health System Performance Assessment, 2009. 2009, pg. 25.

⁸ 116 WHO (Europe). Case Studies on HSPA. 2012 pg.17.

⁹ 53 WHO (Europe). Pathways to Health System Performance Assessment. 2012, pg. 52.

¹⁰ 154 van den Berg M *et al.* The Dutch health care performance report. Health Research Policy & Systems 2014; pg. 3.

¹¹ 124 EXPH (EC). Definition & Endorsement of Criteria to Identify Priority Areas. 2014. pg. 6, 10.

¹² 145 WHO (Europe). Regional consultation on targets and indicators for Health 2020 monitoring. 2013 pg. 5.

The presentation of the results is usually geared to initiate a policy dialogue of sorts with policy makers.¹³ This process, which was outlined in detail in the literature review, was followed by several countries, such as the Netherlands, Belgium, Estonia, Turkey, Malta and Portugal (Rotar, et al., 2016). It is increasingly becoming apparent that international organisations need to work together and collaborate on HSPA in order to standardise the framework, definitions and also data sources. In its report regarding health investments, the EU Working Party on Public Health at Senior Level, stated that *‘this coordination will have a positive impact on Member States by reducing the burden of data collection and reporting, limiting duplication of efforts and producing more consistent results.’*¹⁴ However, the EU diplomatically and understandably leaves each member state to follow its own route although in essence, all the routes are exceedingly similar and lead to the same outcome. In certain instances, such as in Portugal, the policy dialogue and policy cycle that invariably proceeded from the HSPA process formed an integral part of the methodology. The performance assessment of the Portuguese HSPA was driven by a set of policy imperatives on which subsequent policy recommendations were formulated on the advice of experts.¹⁵

The mode of presentation of results presents certain challenges. In most HSAs, results are usually presented against a standard or predefined benchmark or are inserted into a trend analysis. However, standardised approaches are required to compare like-with-like and statistical methods are key to ensure validity and reliability of results. This is also important to understand variations in performance and to ensure that the observed variation is genuine. To this end, risk adjustment is often used to overcome the problem of attributability, to ensure that the outcomes are casually linked to the activity or care under measure, in what Donabedian called *‘attributional validity’* (Donabedian, 1980 (b), p. 103). However, this is also not without difficulties. Risk adjustment (or adjustment for case-mix), if performed on its own, may also give false results, depending upon the technique used for risk adjustment. This is evident, for instance, when producing performance ranking scores for regional health systems

¹³ 116 WHO (Europe). Case Studies on HSPA. 2012.

¹⁴ 4 Working Party on Public Health at Senior Level - Report by sub-group 5: Health investments. 2013.

¹⁵ 46 WHO (Europe). Portugal Health System Performance Assessment. 2010.

or hospitals. This is known as the '*case-mix fallacy*' (Lilford, et al., 2004, p. 1148). On the other hand, the usefulness of comparative rankings is limited unless accompanied by a detailed understanding of mutable regional and intra-country contextual factors and even so, is primarily used by health authorities to spur a policy debate, rather than to take firm policy decisions.

4.5.1.3 Process in the development of HSPAs and the actors involved

Many factors need to be considered before embarking on the HSPA journey.¹⁶

- Optimal frequency for reporting on performance of health system.
- Ownership of the HSPA process.
- Relationship between the HSPA process and the policy cycle.
- Level of application of HSPA (national level, regional or local).
- Report content: Technical/scientific elements plus/minus policy element.
- Type of report: Descriptive/analytical component plus recommendations.
- How to communicate results.

The 'owner' of the process is an important consideration. Most HSPAs are developed directly by the ministries responsible for health (Estonia, Turkey, Malta). Whilst this is understandable due to the intimate link between HSPA and national strategy making, this presents challenges in dealing with independence and autonomy in the research and analytical stages of the process. Whilst no documents explicitly stated that this was a problem, many documents did emphasise the importance of retaining methodological integrity and authenticity. Some countries have circumvented this problem by 'contracting out' this function to autonomous research organisations, such as in Belgium, the Netherlands and Slovenia. However, political ownership of the process is deemed essential for the development and implementation of HSPAs within a country.

Some countries, such as Belgium, actively and purposefully involve politicians and policy makers through formal fora or conferences, where key policy decisions are

¹⁶ 116 WHO (Europe). Case Studies on HSPA. 2012. Pg. 1; 53 – WHO (Europe). Pathways to Health System Performance Assessment. 2012. Pg. 43.

taken as part of the HSPA process (Perić, Hofmarcher-Holzhacker & Simon (2017). This, in itself, is positive in that it demonstrates a direct link between the development of HSPA and policy making and serves as an opportunity to keep *‘all relevant parties well informed and able to contribute to the process.’*¹⁷ In Estonia and Portugal, a synergistic approach was maintained between the development and content of their national political priorities as espoused in their respective National Health Programmes.¹⁸

The EU Expert Panel on Effective Ways in Investing in Health (EUEPIH) believes that consultation with end users is essential when developing and testing the framework, especially in the context of EU member states.¹⁹ WHO also believe that *‘effective communication and wide dissemination are required to create platforms to introduce important changes in health system.’*²⁰ On the other hand, a right balance needs to be reached between scientific rigour and political ownership. This is usually achieved through an iterative and participatory process, such as in the incremental process developed by the Belgian Health Care Knowledge Centre (KCE), where each stage envisaged the sharing of the findings with policy makers and stakeholders. This process, although with certain methodological limitations, served to inculcate a sense of ownership and deliberation which then allowed for the report to be more readily accepted and taken up at policy and political level.

4.5.1.4 HSPA models, indicators and dimensions

This section provides a description on the various HSPA models in place today. Whilst it is largely a descriptive account of the models, dimensions and indicator sets, it also attempts to bring to light the association between the various model types and the policy cycle. Although most models follow the same conceptual framework, there are nonetheless noteworthy variations which differentiate one model from another. This is true in their scope, their approach to performance assessment, ownership and many other facets that delineate HSPA models (Perić, Hofmarcher-Holzhacker & Simon (2017).

¹⁷ 116 WHO (Europe). Case Studies on HSPA. 2012; pg.17.

¹⁸ 116 WHO (Europe). Case Studies on HSPA. 2012; pg.33 and pg.50.

¹⁹ 124 EXPH (EC). Definition and Endorsement of Criteria to Identify Priority Areas. 2014. Pg. 11.

²⁰ 123 WHO (Europe). The European health report 2009. 2009. Pg.147.

4.5.1.4.1 Models and dimensions

The NHS suffered through several iterations of performance models, each moulded to reflect the political agenda of the government of the day. Due to its long history of performance measurement at institutional level, England does not have one national health system performance assessment framework covering the whole health system as other more novice countries do.²¹ The first attempt of measuring performance in the NHS was in 1983, where target setting was the main objective. Over 500 process and input indicators, mostly clinical in nature, were launched. Next came the NHS Plan in 2000, containing a more limited number of indicators. This was again primarily grounded in the performance of the health authorities and hospitals at the time. A traffic light system ensued to classify, reward or penalise these organisations, followed by the star rating system.

Successive legislations tweaked these performance models, from the NHS Operating Framework to Vital Signs between 2007 and 2011, again based upon target setting and monitoring. However, Vital Signs was still considered input- and process-oriented. The latest iteration comes in the form of the NHS Outcomes Framework (Figure 4.2), first published in December 2010.²²

This model differs from many others in that it is not health system driven and places the emphasis on outcome measures in contrast to other models which usually also include input, process and output measures. The first Outcomes Framework is structured around 5 domains, and 60 performance indicators, measuring various facets of care.

These dimensions or domains differ from the traditional set of dimensions that measure efficiency, financial protection, quality of care, etc.²³ A more recent outcomes-based model is that promulgated by New Zealand termed the ‘Systems Level Measure Framework’ (Chalmers, Ashton & Tenbensel (2017).

²¹ 116 WHO (Europe). Case Studies on HSPA. 2012.

²² 107 Secretary of State for Health (UK). Secretary of State’s Annual Report. 2012.

²³ 133 Anne Gulland. English Health Secretary Unveils 60 Performance Indicators. BMJ. 2011.

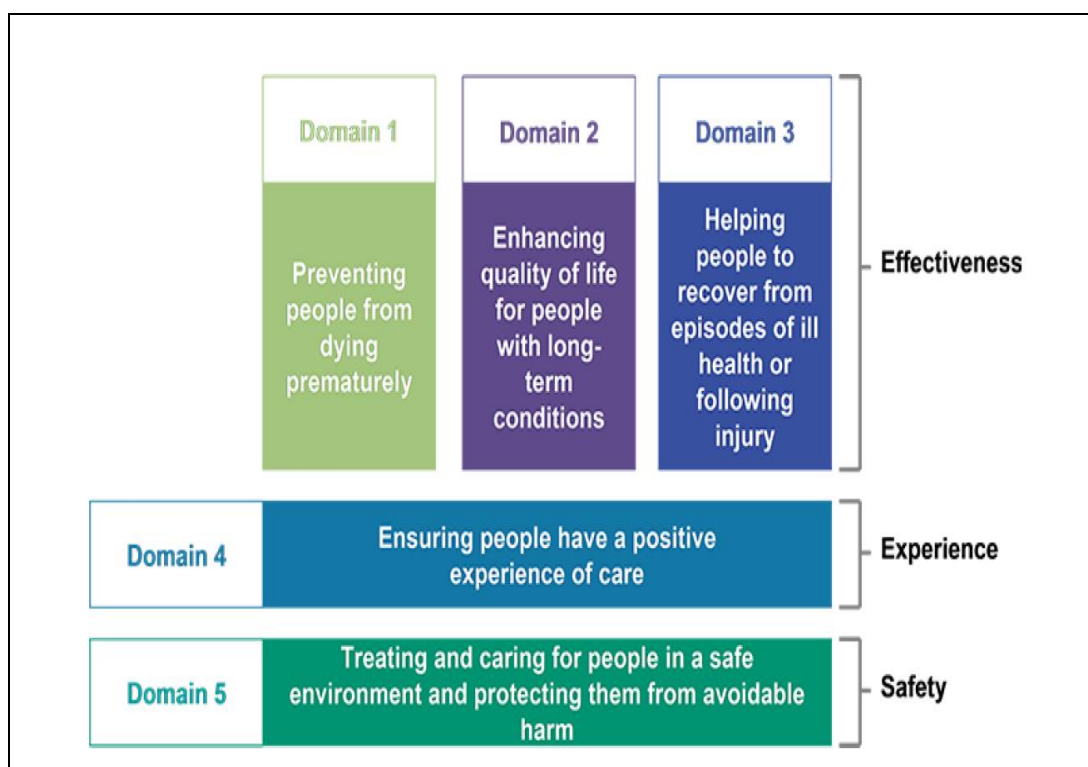


Figure 4.2: England's Outcomes Framework

Source: NHS Group, Department of Health (December 2014)

The Estonian model is based upon the Donabedian approach, with 11 dimensions organised along Levers (Inputs), Intermediate Goals (Process) and Goals (Outputs).²⁴ Similarly, the Portuguese HSPA is also derived from the Donabedian model, consisting of 12 dimensions.²⁵

As part of Georgia's reform process, it developed an ambitious HSPA model, consistent with the WHO framework of health system goals and objectives. It consists of 9 dimensions portrayed as objectives to improve the health system's stewardship, health information systems, allocative efficiency, financial protection, accessibility, health service effectiveness, quality outcomes and population outcomes.²⁶ The recently developed Hungarian HSPA model also promulgates a Donabedian approach (Giedrojć, 2016).

²⁴ 151 WHO (Europe). Estonia Health System Performance Assessment, 2009. 2010.

²⁵ 153 WHO (Europe). Portugal Health System Performance Assessment. 2010.

²⁶ 152 WHO (Europe). Georgia Health System Performance Assessment, 2009. 2010.

4.5.1.4.2 *Indicator sets*

Mackenbach and McKee²⁷ used various ‘policy’ indicators to demonstrate the success or otherwise of health policy formulation and implementation in Europe. They termed indicators with the prefix ‘policy’ to demonstrate the ability performance indicators have in determining how policies are scrutinised and assessed. However, they were not the first to understand the importance of linking indicators with policy generation. Jee and Or²⁸ in 1999 had already drawn up a list of ‘policy indicators’ for use by OECD member states. McKee (pg. 29), this time in conjunction with Rechel, again contended on the importance of choosing a ‘*set of carefully selected, policy- relevant and valid indicators*’ to measure health system performance²⁹. McKee, as part of the EUEPIH, distinguished between ‘normal’ health indicators and ‘leading’ indicators, which are meant to provide an early warning to policy makers.

Rechel and McKee also contend that selection of indicators should be driven by need rather than availability of data. This position contrasts greatly with the recommendations put forward by a WHO expert group in 2013 when discussing well-being indicators. They commented that ‘*indicators should be selected on the basis of their availability for most countries, and be collected in international data collection effort.*’³⁰ One would assume that this easier path was advocated to overcome the difficulties and challenges in choosing the correct indicators, which, in part, can, and indeed, should be mitigated in the long run by developing robust and appropriate health information systems to gather such data on a routine basis, in what Rechel and McKee³¹ term the ‘*metainformation on the indicators used in health information system.*’

4.5.1.5 **Conditions for using performance assessment in policy making**

There are certain conditions that need to be satisfied to ensure the proper development and implementation of HSPA frameworks. Many countries are simply not equipped to generate the required evidence through performance assessment and to translate that evidence into useful information for policy making. As Green and Bennett succinctly

²⁷ 11 Mackenbach JP, McKee, M. Successes and Failures of Health Policy in Europe. 2013.

²⁸ 71 Jee, M. and Z. Or – OECD. Health Outcomes in OECD Countries. 1999.

²⁹ 125 Rechel, B., McKee M. (Eds). Facets of Public Health in Europe.EOHSP. 2014; pg. 29.

³⁰ 144 WHO (Europe).Measurement of and target setting for well-being.2013; pg. 9.

³¹ 125 Rechel, B., McKee M. (Eds). Facets of Public Health in Europe.EOHSP. 2014; pg. 29.

put it *‘the variations in health and health systems experience suggest that many countries simply do not have the necessary policy-making components in place.’*³²

Swedish public health authorities have identified several conditions that need to be met to ensure a robust public health monitoring and performance system. These include more specific and explicit measurable goals, better access to data at regional and local, better control of management systems and the need for increased expertise and knowledge.³³ Moreover, one of the most important tenants of HSPA and performance assessment in general is that the results are not used for punishment but for learning, change and improvement. This is one of the most fundamental precepts of HSPA and needs to be clearly understood by all involved, most especially policy makers and managers.³⁴

Experience from countries that have introduced HSPA frameworks shows that unless there is firm government ownership and support for HSPA at the highest level, its impact upon service improvement and moreover policy making would be minimal. Various case studies have shown that whilst some countries, such as Belgium and the Netherlands, have integrated the HSPA process into their policy cycle, others such as Portugal and Estonia did not yet manage to garner the required support at central level to follow suit.³⁵

The EUEPIH have agreed that establishing HSPA as part of a repetitive policy cycle is essential to extract the full benefit of performance assessment tools and in so doing nurture a greater sense of accountability and transparency amongst policy makers.³⁶ This is improved upon if HSPA is relevant to policy makers and is aligned to current health priorities.³⁷ As Oliver *et al* (2015) put it, *‘relevance is achieved by interaction between policy makers and researchers during the review process.’*³⁸ This however

³² 94 Green A., Bennett S. Sound choices-enhancing capacity for evidence-informed health policy. WHO. 2007. Pg. 28.

³³ 49 SNIPH. Ten years of Swedish public health policy. 2013. Pg. 22.

³⁴ 67 WHO (Europe). Performance Assessment Tool for Quality Improvement in Hospitals (PATH). 2007. Pg. 12.

³⁵ 116 WHO (Europe). Case Studies on HSPA. 2012. Pg. 14.

³⁶ 4 Working Party on Public Health at Senior Level - Report by sub-group 5: Health investments. 2013. Pg. 19.

³⁷ 53 WHO (Europe). Pathways to Health System Performance Assessment. 2012. Pg. 15.

³⁸ 98 Oliver S. *et al*. Systematic reviews-making them policy relevant. 2015. Pg 1.

depends on whether the HSPA report is purely technical or whether it also includes a policy angle with policy recommendations. Whilst some proponents argue that the HSPA process should be completely independent of the policy making machinations to retain full objectivity and transparency, others argue that this distance would work against the proper assimilation of the HSPA process into the policy cycle. WHO believes that *‘for the knowledge generated through HSPA to be translated into policy, a dialogue between the evaluators and policy-makers is critical, at the outset and at key milestones of the process.’*³⁹

The expectant expertise and competences are also required to build a correct model and to translate the findings into tangible results. The *‘proper statistical treatment of performance indicators is essential if appropriate policy inferences are to be drawn, given the large degree of random variation present in most performance indicators.’*⁴⁰

Timeliness is also an important factor to consider since the data produced needs to be relevant for the time-period under consideration, especially since data quickly becomes outdated.⁴¹ This delay is not understood nor appreciated by policy makers and the lack of timely produced evidence risks rendering the HSPA process redundant if not managed properly.⁴²

4.5.2 Legal, organisational and technological issues

There are legal, organisational and technological factors that need to be considered in the development of HSAs and their implementation across health systems.

4.5.2.1 ICT tools for assessing evidence and for performance measurement

Information technology plays an essential role in measuring the data that is subsequently used for performance assessment. This section outlines the importance and application of ICT in data performance systems.

³⁹ 53 WHO (Europe). Pathways to Health System Performance Assessment. 2012. Pg. 50.

⁴⁰ 6 Smith, PC. *et al.* Performance Measurement for Health System 2009. Part 6. Pg. 687.

⁴¹ 6 Smith, PC. *et al.* Performance Measurement for Health System 2009. Pg. XI.

⁴² 15 Lavis, JN. *et al.* Knowledge brokering. Bridge Series. EOHSP. 2013. Pg. 9.

4.5.2.1.1 *The importance of health information systems*

A reliable and robust Health Information System (HIS) is essential to develop an effective HSPA and generate the required evidence in the form of performance data. A HIS allows for the consistent and comprehensive collection and analysis of data using routine monitoring and reporting activities. Mackenbach and McKee (2013) are very clear on the importance of HIS when they state that *‘Health policies also require functioning information systems. These are necessary to identify those at greatest need’* and *‘information systems are also essential to monitor the performance of a health policy in order to identify when and where to intervene if problems arise.’*⁴³

Some may argue that many countries have advanced HIS in place to capture the required data. However, even countries such as the Netherlands have realised, through various research initiatives, that *‘their health information systems were, as yet, insufficient to enable the type of fine-grain analysis considered necessary.’*⁴⁴

From another perspective, the proper capture and use of information is a *‘resource for securing managerial, political and democratic control of the health system, in short, improving governance.’*⁴⁵ High quality data capture is essential but this needs a significant investment and a deep understanding of the value of health information systems.⁴⁶

There have been considerable attempts by CION, in collaboration with WHO and OECD, to devise a broad but unified European health information database for the European region⁴⁷. To this end, CION has sought to create an EU-wide legal framework and to open lines of communication to address information gaps and improve the gathering of evidence through a robust HIS, although to date this has proven problematic.⁴⁸

⁴³ 11 Mackenbach JP, McKee, M. Successes & Failures of Health Policy in Europe. 2013. Pg. 326.

⁴⁴ 139 ERRIN 15. Enhancing Value in European Health Systems - The Role of Outcomes Measurement. 2016. Pg. 43.

⁴⁵ 6 Smith, PC. *et al.* Performance Measurement for Health System 2009. Part 1, Pg. 4.

⁴⁶ 44b MOH (Portugal). National Health Plan 2012 – 2016. 2012. Pg. 19.

⁴⁷ 3 Seychell M, Hackbart B. The EU health strategy – investing in health. Public Health Reviews. 2013; 35. Pg. 9.

⁴⁸ 8 Euro Observer Volume 21, Number 1, 2015 – Reducing inequalities in health and health care. Pg. 17.

4.5.2.1.2 Link between HSPAs and Health Information Systems

HSPAs and HISs are mutually synergistic but not mutually exclusive. They are both essential elements to generate, collect and disseminate the required evidence for clinical and management decision taking. However, *‘HSPA has brought to the forefront a number of issues regarding fragmentation of databases and has highlighted the opportunities that arise when data from difference sources are brought together.’*⁴⁹

As a result of technological advances and reduced costs, many countries have now *‘developed national repositories of health information or national performance assessment programmes. Indeed, several systems often coexist in many countries.’*⁵⁰ This co-existence has some advantages. The availability and accessibility of public domain health performance data adds credence to the performance assessment paradigm, which in turn is important to increase acceptability in the sharing of sensitive health performance data as required by the HSPA process.⁵¹

4.5.2.1.3 Health information databases: Their use and applicability

There are several national and international databases containing a myriad of health performance indicators. Information databases have become increasingly possible with the *‘enormous increase in capacity for measurement and analysis as seen in the last decade, driven in no small part by massive changes in information technology and associated advances in measurement methodology.’*⁵² These technological advances have revolutionised the manner in which performance data is acquired, stored and analysed and has led to the advent of ‘big data research.’

The ECHI database has been instrumental in assessing the progress of European health systems and, together with HSPA, is considered by CION as one of the pillars for gathering evidence of the effects of structural reforms in the EU.⁵³ Whilst international health databases have several advantages, there are significant

⁴⁹ 116 WHO (Europe). Case Studies on HSPA. 2012. Pg. 63.

⁵⁰ 12 Papanicolas, I, Smith, PC. Health System Performance Comparison. 2013. Pg. 4.

⁵¹ 12 Papanicolas, I, Smith, PC. Health System Performance Comparison. 2013. Pg. 313.

⁵² 12 Papanicolas, I, Smith, PC. Health System Performance Comparison. 2013. Pg. 1.

⁵³ 3 Seychell M, Hackbart B. The EU health strategy: Investing in health. Public Health Reviews. 2013; 35. Pg. 9.

challenges, related primarily to standardisation of definitions and data comparability among countries. WHO's work on the classification of diseases has sought to overcome these difficulties. On the health financing side, OECD's System of Health Accounts has been instrumental in generating a standardised approach to measuring health financing.⁵⁴ Although the United States does not have a nation-wide HSPA framework, the Commonwealth Fund has developed a National Scorecard on U.S. Health System Performance. This database measures the performance of the US health system through 38 indicators across five dimensions.⁵⁵

4.5.2.2 Organisational issues

The institutionalisation of HSPA takes on many forms. The HSPA function within a health ministry may form an integral part of the ministry or may be positioned at arms-length in a semi-independent or independent unit or agency. The model adopted is usually determined by the motive for setting up the HSPA function in the first place. Ministries for Health which adopt an iterative policy making process usually embed the HSPA function within its core function, allowing synergies to be created between researchers and policy makers. This also creates a strong sense of ownership whilst allowing closer alignment between policy makers and researchers. On the other hand, independent agencies are more appropriate if the main purpose of the HSPA to foster greater accountability and transparency.⁵⁶

WHO have been fierce advocates for the integration of HSPA into core government business. It encourages member states to dedicate enough resources and expertise to development and sustain HSPA. It firmly believes that HSPA would inculcate a culture of excellence in health system performance. However, evidence shows that few countries have really adopted HSPA as a core function within their arsenal for policy making and health system improvement. Italy may be one of the exceptions, where the Ministry of Health created a new department to oversee the performance of the Italian health system and coordinate the responses from the regions.⁵⁷

⁵⁴ 6 Smith, PC. *et al.* Performance Measurement for Health System 2009. Part 5. Pg. 651.

⁵⁵ 12 McCarthy *et al.*, 2009 as cited in 12 - Papanicolas, I, Smith, PC. Health System Performance Comparison. 2013. Pg. 85.

⁵⁶ 116 WHO (Europe). Case Studies on HSPA. 2012. Pg. 63.

⁵⁷ 142 MOH (Italy). Piano della performance 2015 – 2017. 2015. Pg. 4.

Research organisations that wish to have an impact on policy making need to create the right organisational model to align their objectives with the needs of policy makers. Organisations that are sought after for policy support are usually geared towards providing ‘policy friendly’ reports and policy briefs. There are several organisations that have been successful in this game, such as those adopting an organisational model that focuses upon knowledge brokering to provide evidence for policy making.⁵⁸ *‘Knowledge-brokering organizations need to match form to function when designing organizational models that will best support well-informed health systems decision-making.’*⁵⁹ On the other hand, many academic units, especially those within universities, are not concerned with producing evidence for policy making but purely for advancing scientific knowledge.

Chatham House, in one of their policy papers, produces an insightful overview of the barriers and potential solutions to share public health data for policy making. There are technical, motivational, economic, political, legal and ethical barriers which could be overcome by a robust legal framework and promoting political advocacy, building enough capacity and expertise, and building trust and inculcating a culture of transparency and accountability.⁶⁰

4.5.2.3 Legal basis for performance assessment and evidence-based policy making

A legal framework provides greater legitimacy for performance measurement and assessment. Some countries have embedded their performance process within a legal framework, whilst others have adopted a more voluntary approach.

4.5.2.3.1 Inter-country legal provisions

CION took a roundabout way to introduce the concept of evidence-based policy making into its legal framework, by inserting an article (Article 15) dealing with European networks for health technology assessment within the directive on patients’ rights in cross-border healthcare (European Commission , 2011). HTAs have been

⁵⁸ 102 Lavis, JN. *et al.* Bridging the worlds of research & policy in European health systems. EOHSP.2014. Chapter 2. Pg. 13.

⁵⁹ 102 Lavis, JN. *et al.* Bridging the worlds of research & policy in European health systems. EOHSP.2014. Chapter 10. Pg. 5.

⁶⁰ 118 Sane, J., Edelstein, M. (Chatham House). Overcoming Barriers to Data Sharing. 2015. Pg. 19.

introduced by most member states and can serve as a basis for additional evidence-based mechanisms, such as HSPAs.⁶¹ Nonetheless, there is also an acknowledgment that Europe lacks a legal framework for sharing of data and information for policy making, except in dealing with data protection and data security issues.⁶²

4.5.2.3.2 *Data sharing*

The EU's legal framework on patient data and privacy has been criticised due to its potential barrier to sharing patient data for research purposes. Whilst it is not the intention of this study to delve into any great detail on this complex issue, its mention is important since it may have an impact upon the comparison of performance data across health systems since patient and population data characteristics feed into the performance indicators that populate the HSPAs.⁶³ Chatham House is not hopeful that a global data sharing legal framework is likely any time soon. The alternative, in its view, is to create a '*global data governance or ethical framework, supplemented by local memoranda of understanding that take into account the local context.*'⁶⁴ The International Health Regulations (IHR) framework can be considered as an arrangement for data sharing, although these are not a mandatory requirement on countries, neither do they set minimum data set standards.

4.5.2.3.3 *Legislative instruments*

Only a few countries have legislation in place to ensure the production and dissemination of evidence and to assure quality of care. Germany, Hungary, the Netherlands, Austria and Sweden have laws dealing with quality assurance programmes, sufficiency of standards of care and health system performance.⁶⁵ However, legislation linked to HSPA is not a common feature of a country's legal portfolio and, unlike HTAs, has not yet been integrated into any relevant legal instruments. Hungary decried that HSPA should be incorporated into their legal framework although it took more than 4 years to translate this law into reality

⁶¹ 3 Seychell M, Hackbart B. The EU health strategy – investing in health. Public Health Reviews. 2013; 35. Pg.8.

⁶² 8 Euro Observer Volume 21, Number 1, 2015 – Reducing inequalities in health and health care. Pg. 17.

⁶³ 128 Hofmarcher, MM. Smith, PC. (eds.). The Health Data Navigator. EuroREACH. 2013. Pg. 17.

⁶⁴ 118 Sane, J., Edelstein, M. (Chatham House). Overcoming Barriers to Data Sharing. 2015. Pg. 2.

⁶⁵ 5 Quigley, HL *et al.* Assuring the quality of health care in the European Union. 2008. EOHSP. Pg. 18, 22, 23.

(Babarczy, et al., 2017). Belgium's KCE has a legal mandate to generate and provide evidence for the Belgian authorities.⁶⁶

Many laws relating to performance assessment and quality of care were introduced in the context of evolving health care reforms, such as in the case of the '*Agence nationale d'appui à la performance des établissements de santé et médico-sociaux*'.⁶⁷

England has a similar requirement where the Health and Social Care Act 2012 now requires the Secretary of State for Health to report, on an annual basis, on the performance of the health service. These reports would, for the first time, be open to parliamentary scrutiny.⁶⁸ Finland also has a legal mandate to report to parliament, through the work of its National Institute for Health and Welfare.⁶⁹

4.6 Relationship between performance assessment and policy development

This set of themes looks at the evidence linking HSPAs with policy making, citing various models of policy making and the impact of extraneous factors on policy development.

It is important to highlight at this juncture that although there is an abundance of literature and documentation on evidence-based policy making, there is little evidence to show how HSPAs have, in a real and effectual manner, impacted policy. This problem was already recognised by WHO in 2007, where Green and Bennett (2007) claimed that there was, at the time, a growing need to discover what works and what doesn't work in policy terms, based upon the available evidence.⁷⁰

4.6.1 Linking HSPA with policy development

This next section discusses the evidence showing a direct or causal link between HSPA and policy making.

⁶⁶ 102 Lavis, JN. *et al.* Bridging the worlds of research & policy in European health systems. EOHSP. 2014. Chapter 6. Pg. 9.

⁶⁷ 7 Maresso A. *et al.* Economic crisis, health systems and health in Europe. 2014. Pg. 382.

⁶⁸ 107 Secretary of State for Health (UK). Secretary of State's Annual Report. 2012. Pgs. 7, 8.

⁶⁹ 104 Lavis, JN. *et al.* Bridge Series _ Policy Summary 8. Learning from one another. 2013. Pg. 17.

⁷⁰ 94 Green A., Bennett S. Sound choices-enhancing capacity for evidence-informed health policy. WHO. 2007. pg. 128.

4.6.1.1 Translating the evidence into policy

Evidence-based policy making is challenging since policy makers and researchers occupy very different positions with ‘*different values, ideologies, languages, backgrounds, institutional settings and reward systems.*’⁷¹ This is probably the main challenge faced by proponents of HSPA, that of bridging the gap between those who construct and report on performance assessment and those who assimilate this information and take policy decisions. The marrying of these two paradigms is key to the successful incorporation of the HSPA process into the policy cycle. This relationship is further complicated since policy implementation itself is not an exact science but a ‘natural experiment’ without control groups and, therefore, cause and effect cannot easily be established.⁷² This was amply expressed by the Alliance for Health Policy and Systems Research in Geneva wherein it stated that:

*‘policy-makers and managers complain that they frequently encounter research that is not relevant to real life problems, full of results expressed in esoteric or obscure language, often published in inaccessible journals. Conversely, researchers often complain that policy-makers and health managers ignore research results which are the fruit of careful work supported by substantial investment.’*⁷³

This mismatch creates an inherent tension between researchers and policy makers which is further compounded by policy makers who may lack the tools and skills to interpret scientific evidence but also by the lack of ‘policy or political astute’ researchers. Greater trust and mutual respect is therefore advocated between researchers and policy makers through greater engagement in a purposeful dialogue, where policy makers participate at inception of the performance assessment process, allowing researchers to meet their requirements.

However, even if the above is adhered to, WHO still admits that ‘*policy decisions, especially on broad, systemic and politically sensitive issues, such as HSPA, cannot be based solely on evidence,*’ even though it is still imperative that the ‘*evidence-*

⁷¹ 10 Garrido, MV, *et al.* Health Technology Assessment and Health Policy Making in Europe. 2008; pg. 25.

⁷² 11 Mackenbach JP, McKee, M. Successes and Failures of Health Policy in Europe. 2013.

⁷³ 93 Alliance for Health Policy and Systems Research, Geneva. Strengthening health systems. 2004. Pg. 51.

*informed approach implies a transparent and systematic method for generating and using research and other evidence as an input into the policy-making process.*⁷⁴

4.6.1.2 Evidence in favour or against the link between performance assessment and policy making

The document review noted different policy responses to HSPA. Whilst the Dutch Health Care Performance Report necessitated two to three iterations to have a discernible impact upon its national policy agenda,⁷⁵ the Belgian HSPA process was still not ‘*fully embedded within the ongoing Belgian political debate and health policymaking*’⁷⁶ up to 2014, although its latest iteration claims to have made inroads into the policy process.⁷⁷ On the other hand, Armenia’s HSPA has contributed directly to the development of several national policies such as the National Tobacco Control Programme and a policy paper on tackling non-communicable diseases.⁷⁸

The opposite holds true in the case of alcohol policy, where although the burden attributable to alcohol is well documented, the policy response is not consistent.⁷⁹ The same can be said for the global rise of non-communicable diseases where, in a conference organised by Chatham House and in the presence of the Director General of the WHO, it was acknowledged that in spite of the overwhelming evidence on the burden of non-communicable diseases, policy makers still do not make a concerted effort to deal with this epidemic.⁸⁰

4.6.1.3 Use of HSPA frameworks to inform policy

Georgia’s HSPA was instrumental in expounding several policy recommendations dealing with improving health system stewardship, improving health information systems and the efficient allocation of resources were proposed.⁸¹ These recommendations follow the same pattern as for Armenia and this is not surprising since WHO spearheaded this process in both these countries. WHO has long

⁷⁴ 53 WHO (Europe). Pathways to Health System Performance Assessment. 2012; pg. 55.

⁷⁵ 159 Hegger I. *et al.* Enhancing the contribution of research. JHSRP 2016, Vol. 21(1) 29–35. Pg 31.

⁷⁶ 156 Smith PC. Peer Review Belgian Health System Performance Assessment. 2014. Pg. 17.

⁷⁷ 158 KCE. Performance of the Belgian Health System Report 2015. 2015.

⁷⁸ 53 WHO (Europe). Pathways to Health System Performance Assessment. 2012. Pg. 9.

⁷⁹ 11 Mackenbach JP, McKee, M. Successes and Failures of Health Policy in Europe. 2013. Pg 51.

⁸⁰ 13 McQueen, DV. *et al.* Intersectoral Governance for Health in All Policies. 2012. Pg 19.

⁸¹ 152 WHO (Europe). Georgia Health System Performance Assessment, 2009. 2010.

advocated for the integration of HSPA into the performance and policy building process and has provided several examples of the usefulness and effectiveness of HSAs but its declarations contrasts with that of other authors, who have documented several limitations in the use of HSAs. Smith *et al.*, in their compendium on health system performance, also outlined several case studies of good practice, from the United States Veteran Health Administration where ‘*performance indicators were used to monitor the effects of health system reforms while driving accountability agreements at sub-system and individual levels*’, to the Ontario Ministry of Health and Long-Term Care where they have extensive experience in utilising performance information decision making cycle.⁸²

On the other hand, several authors contend that since HSPA is not yet embedded into the national legal framework, its influence on policy is understandably limited. However, given the importance given to HSPA by the EU, WHO and OECD, some contend that it will only be a matter of time before many countries recognise its importance and integrate some form of HSPA into their official policy making process.⁸³

This is the view of the EUEPIH and the European Commission ‘Report by Sub-Group 5 on Measuring and Monitoring the Effectiveness of Health Investments,’ which have reinforced the concept of evidence-based policymaking throughout their mandate,⁸⁴ although they also reported that whilst some countries do use HSPA occasionally for policy development, the extent of this across the EU is still not clear.⁸⁵

4.6.1.4 Policy cycle, process and tools

The policy cycle contains four stages, namely; planning, implementation, evaluation (appraisal) and redesign of the intervention. Evidence on the outcome of the intervention is required at the evaluation stage to appraise the various options under scrutiny before deciding which direction to take. HSPA provides such evidence by interjecting at the appraisal stage as an integral part of the policy cycle.

⁸² 6 Smith, PC. *et al.* Performance Measurement for Health System 2009. Pg. 662.

⁸³ 116 WHO (Europe). Case Studies on HSPA. 2012. Pgs 60, 62.

⁸⁴ 124 EXPH (EC). Definition and Endorsement of Criteria to Identify Priority Areas. 2014. Pg. 10.

⁸⁵ 4 Working Party on Public Health at Senior Level - Report by sub-group 5: Health investments. 2013.

4.6.1.4.1 HSPA as part of the policy cycle

Estonia has aligned its first HSPA report with its national health strategy and both tools have been used in setting the policy agenda. Both these functions have been integrated under the same responsibility as they claim that these synergies would augment the policy cycle.⁸⁶ Turkey's HSPA framework has also featured heavily in the national and regional policy making process, where its proponents commented about '*embedding performance assessment in policy and management of the system*'.⁸⁷ However, there is no evidence or published material to show that these aims, however noble, have been reached and how HSPA, after its launch, was actually instrumental in steering policy in Turkey.

Nonetheless, WHO has ascertained that there is an intimate link between performance indicators and the establishment of targets as part of a national health plan. It claims that this is the case in 43 out of the 53 Member States of the European Region where outcomes form an integral part of their national health strategy.⁸⁸

4.6.1.4.2 Sources of evidence other than from HSPA frameworks

*Research evidence may play different roles at different stages of the policy formulation cycle. Since evidence can come from many different sources, in many different forms and with varying degrees of quality (and transferability), significant capacities are required to draw upon research evidence in policy-making.*⁸⁹

HSPA does not have a monopoly on generating the required evidence for policy making. This became quite evident as the document analysis progressed. There are several other tools at the disposal of policy makers to garner the required evidence to take important decisions. Health Technology Assessment (HTA) is now an established mechanism to provide evidence on the use of technology and drugs. Most European countries today have established a statutory and/or scientific HTA programme and this usually forms an integral part of the policy making process,⁹⁰ where its use has been

⁸⁶ 116 WHO (Europe). Case Studies on HSPA. 2012. Pg. 40.

⁸⁷ 54 WHO (Europe). Turkey Health System Performance Assessment 2011. 2012. Pg. 10.

⁸⁸ 60 Tello J., Baez-Camargo C. (Eds). WHO (Europe). Strengthening health system accountability. 2015. Pg. VI.

⁸⁹ 94 Green A., Bennett S. Sound choices-enhancing capacity for evidence-informed health policy. WHO. 2007. Pg. 109.

⁹⁰ 10 Garrido, MV, *et al.* Health Technology Assessment and Health Policy Making in Europe. 2008. Pg. 23.

formalised through the implementation of the EU directive on patients' rights in cross-border healthcare, in particular in the application of Article 15 dealing with the European network for health technology assessment.⁹¹ HTA could serve as a model for the future integration of other scientific tools into the policy cycle, such as HSPA frameworks, where evidence would be a statutory requirement for decision making in health care. HTAs are also very similar to the HSPA process in that both determine or attempt to influence policy prospectively contrary to traditional policy analysis which is predominantly retrospective, where the aim is to '*inform policy processes before the formulation of policies or a formal decision.*'⁹²

The downside of using complex scientific methods as an adjunct to public decision-making is that the methods and sometimes, the conclusions are not understood by the public and can be sometimes misconstrued and even overtly criticised. This derision does not go down well with politicians who are, perhaps understandably so, reluctant to take policy decisions that, whilst well-grounded in evidence, go against the public sentiment or perception.

4.6.1.4.3 Influencing policy agenda beyond available evidentiary path

Mackenbach and McKee (2013) analysed which countries have introduced successful policies and why some policies seem to work better than others. They conclude that there are several factors that are key for successful policy making, which include recognition of the problem, the availability of scientific evidence and the involvement of stakeholders at multiple levels. Moreover, they contend that health policies are particularly dependent on '*service provision, behaviour change and intersectoral policies.*'⁹³

Figueras *et al.*, as quoted in Smith *et al.* (2009), postulates that policy formulation is influenced by a variety of circumstances which are 'path-dependent,' where policies are influenced by historical factors and that each policy has a 'historical path' that

⁹¹ 3 Seychell M, Hackbart B. The EU health strategy – investing in health. Public Health Reviews. 2013; 35. Pg. 8.

⁹² 10 Garrido, MV, *et al.* Health Technology Assessment and Health Policy Making in Europe. 2008. Pg. 35.

⁹³ 11 Mackenbach JP, McKee, M. Successes & Failures of Health Policy in Europe. 2013. Pg. 74, 316.

needs to be taken in consideration.⁹⁴ This supports the incremental model of policy making.⁹⁵

It goes without saying that politics plays a crucial role in policy making. In many areas, the two are indistinguishable, including the health sector, which is as equally influenced by the political agenda as any other sector. Indeed, it would be foolhardy to try to detach the political reality from policy making, even in health. This unrealistic view is sometimes referred to as the ‘technocratic wish’ (Chinitz & Israeli, 1999), where scientists believe, perhaps mistakably so, that policy and management decisions could and should be based solely on evidence. Some would argue that *‘politics is not only an unavoidable and legitimate part of decision making regarding the allocation of health resources, but also that evidence-based medicine itself is a political endeavour.’*⁹⁶ Furthermore, most policy decisions within pluralistic democracies are taken as part of a wider democratic process, often with public consultation. This is termed as the ‘democratic wish’ (Morone, 1998), with the people or public having a greater voice in decisions that affect them.

4.6.1.4.4 The causality dilemma

One of the well-documented challenges of using performance assessment at system level is the issue of causality. Whilst this was amply covered in the literature review (Mainz, 2003); Filippidis, Mian & Millett; (2016), the document analysis also came across this important issue. The main difficulty seems to lie in correlating success or failure of high-level strategic goals and reforms with the performance or otherwise of specific areas of the health system. To achieve this, *‘policy-makers need a solid performance assessment framework that highlights the expected causal relationships between the different performance dimensions.’*⁹⁷ A more technical response to this challenge is proposed by Smith *et al.*, (2009), where they recommend that *‘policy-makers should be careful to control properly for measurement and attribution error by using statistical methods to evaluate causal relationships and inform policy.’*⁹⁸

⁹⁴ 6 Smith, PC. *et al.* Performance Measurement for Health System 2009. Pg. 582.

⁹⁵ 73 OECD. Measuring Up. 2002. Pg. 14.

⁹⁶ 132 Rosen, B. *et al.* The Fourth International Jerusalem Conference on Health Policy. 2009. Pg. 259.

⁹⁷ 53 WHO (Europe). Pathways to Health System Performance Assessment. 2012.

⁹⁸ 6 Smith, PC. *et al.* Performance Measurement for Health System 2009. Pg. 685.

4.6.1.4.5 Research organisations as part of the policy cycle

Many research driven organisations are now attuned to the requirements of policy makers. In fact, in recent years, the need for evidence-based policy making has become more commonplace and policy is more frequently being informed by the results of their research. Those organisations that steer their research agenda as close as possible to pertinent public issues of relevance have been more successful in influencing the policy agenda through their research.

The Norwegian Knowledge Centre for the Health Services (NOKC) is one such organisation, where it has *‘been successful in informing policy-making as a result of the organization’s proximity to the policy-making process, both by design and through the active work of senior management, while retaining its independence from political agendas and interest groups.’*⁹⁹ The NOKC has become a comfortable ‘bed fellow’ in policy circles, to the point of inviting politicians and other decision-makers to submit requests for evidence-based policy topics, and also participating in policy dialogues.

4.6.1.5 Use of measures and targets to reach policy objectives

Using targets for performance monitoring has always been a controversial topic. On the one hand, supporters of this method insist that targets are an essential prerequisite for adequate performance assessment. They claim that it fosters accountability and guides policy makers to set the right priorities. On the other hand, detractors claim that target setting is discriminatory, subjective and creates an unequal playing field. Whichever point of view is adopted, evidence indicates both advantages and drawbacks.

Even after three decades, target setting in England still attracts considerable controversy. It has evolved over time and passed through several iterations, the latest one reflecting a more outcome-oriented and quality-oriented approach. The star rating system (2001–2005) was perhaps the most explicit example of target setting where NHS hospitals were rated annually, based on a wider range of targets and indicators

⁹⁹ 102 Lavis, JN. *et al.* Bridging the worlds of research & policy in European health systems. EOHSP. 2014. Chapter 8. Pg. 5.

in a balanced scorecard. Although not well received, the star rating system did manage to register improvements in several clinical areas, such as waiting times at Accident and Emergency and for elective surgery.¹⁰⁰ The impact on longer term health gains is however, not yet verified as the results of target setting have not yet produced the anticipated gains in health outcomes.¹⁰¹

4.6.1.6 Non-health sectors:

Use of evidence, performance assessment & policy making

The notion that only health factors affects health is nonsensical. Throughout time, it has been shown that the major public health advances have resulted from improvements in other areas, such as housing, clean water sources, employment, etc. Hence, the discussion of non-health related factors in influencing health policy is always an important consideration that should not be overlooked. Chatham House summarises this succinctly where it states that *‘to combat the rise of these diseases, policies in other sectors, like food, agriculture, and trade, must change.’*¹⁰²

Moreover, health was not a leading proponent in the use of performance assessment for improvement and policy making. Health was preceded by other sectors, such as education, transport and the environment which have been using international performance indicators as an assessment tool for many years, prior to health. In fact, the use of performance assessment methods in these sectors *‘paved the way for their acceptance in the health-care field.’*¹⁰³

4.6.1.6.1 Use of health system evidence:

For decision taking in other sectors and vice versa

The interaction between health and other sectors is mutually re-enforcing. Health affects many other sectors, such as social care, employment, education, the economy, whilst the same is true for these sectors having an impact upon health. These sectors also utilise performance assessment tools and indicators, some of which overlap and cooperate in sharing knowledge on methods of performance assessment, such as the *‘knowledge acquired about global environmental governance which, according to*

¹⁰⁰ 116 WHO (Europe). Case Studies on HSPA. 2012. Pg. 23, 25.

¹⁰¹ 6 Smith, PC. *et al.* Performance Measurement for Health System 2009. Pg. 522.

¹⁰² 96 Chatham House. The Rise of Global Health in International Affairs. 2011. Pg. 4.

¹⁰³ 6 Smith, PC. *et al.* Performance Measurement for Health System 2009. Pg. 641.

Sandberg *et al.* (2015), ‘will help global health researchers to leapfrog analytical groundwork on global governance and fast forward their own research.’¹⁰⁴ This is understandable given that environmental issues, such as climate change and environmental pollution have provided for greater public debate for far longer than health issues, especially because of the global appeal of environmental issues. In fact, unlike environmental impact assessments or strategic environmental assessments, the use of health impact assessment (HIS) as a planning and policy tool is not usually mandated by law, nor is there a regulatory regime which regulates its use and methodology.¹⁰⁵

4.6.1.6.2 Performance assessment in non-health sectors

Social care and social policy are closely aligned with health and many examples on performance assessment and monitoring of care emanate from the social sphere. There is a trust at European level to use evidence-based policy making in social care, as part of EU-wide social care reforms with the aim of improving the welfare state. The Europe 2020 Strategy targets key social and welfare areas for action,¹⁰⁶ and the implementation of these measures are monitored through a series of indicators, through scoreboards incorporated into various frameworks such as the Joint Assessment Framework (JAF), the Social Protection Performance Monitor (SPPM) and the Employment Performance Monitor (EPM).¹⁰⁷

In England, like the NHS Outcomes Framework, there is a mirror framework in adult social care. The components of the Adult Social Care Outcomes Framework are analogous to its health cousin, looking into quality of life, reducing need for social care and protection of the vulnerable elements of the population.¹⁰⁸

Performance assessment is also prevalent in other government circles. In England, education has a long tradition of performance assessment, such as in the use of the Early Development Instrument which is widely used to assess early childhood

¹⁰⁴ 95 Sandberg K. *et al.* Lessons for Global Health from Global Environmental Governance. 2015. Pg. 3.

¹⁰⁵ 14 Leppo, K. *et al.* Health in All Policies. 2013. Pg. 274.

¹⁰⁶ 126 Doyen, M., Lara Montero, A., Looking ahead – Local public social services. ESN. 2015. Pg. 19, 47.

¹⁰⁷ 112 Vandenbroucke F & Vanhercke B. A European Social Union. 2014 Pgs. 11, 12, 40, 77, 91. 92.

¹⁰⁸ 107 Secretary of State for Health (UK). Secretary of State’s Annual Report. 2012. Pg. 19.

development,¹⁰⁹ whilst Ofsted produce school ratings based on various quality dimensions.¹¹⁰ This has not been immune to controversy either, as for in health, star ratings and league tables are subject to criticism and do not necessarily reflect the true situation on the ground, especially in complex areas as in health, social policy and education (Klassen, et al., 2010).

In sharp contrast with the health care sector, many other sectors possess a composite or summary or overarching indicator or set of indicators that provide policy makers and the public with key information on the performance of the sector in question and on the trends in that sector. This is true for Gross Domestic Product in economics, Carbon Monoxide emissions for environment, unemployment rates for the employment sector, qualified school leavers in education and so on. *‘In the health sector, however, no single overarching indicator has been agreed upon.’*¹¹¹

4.6.2 Comparative policy making

A great amount of work in relation to HSPA has revolved around inter-country, regional and international comparative work. Comparisons of performance assessment data have been instrumental in moulding policy at regional, national and international level and on this basis national and international comparisons of HSPA generated data are considered a cornerstone of policy development.

This benchmarking is only possible through international collaboration and cooperation. This phenomenon was not common until more recently as each country or region had different measurement systems and incongruent data collection and assessment models. Moreover, data sharing was not readily accepted as the norm.

Globalisation, the advent of the internet and electronic means of data generation and communication, and interdependence between nations changed the information paradigm completely where health systems are now expected to share data on the performance of their health system. This necessitates a great deal of cooperation, trust

¹⁰⁹ 14 Leppo, K. *et al.* Health in All Policies. 2013. Pg. 119.

¹¹⁰ 114 Nuffield Trust. Rating providers for quality - a policy worth pursuing. 2013Pg. 24, 32.

¹¹¹ 4 Working Party on Public Health at Senior Level - Report by sub-group 5: Health investments. 2013. Pg. 20.

and convergence towards common goals and international agencies have contributed significantly towards the realisation of this project.

4.6.2.1 International and regional cooperation to inform policy

The main premise for cooperation between countries is that there is potential to learn from each other, in terms of how their health systems and services work. Europe is probably at the forefront of international comparative research through the implementation of multi-lateral Europe-wide studies, usually funded by CION. This natural laboratory with its wide variation in health systems, funding mechanisms and quality divergences provides considerable insight into performance related research and data analysis.¹¹²

4.6.2.1.1 Projects and programmes

Bilateral, cross national, multi-regional and international cooperation is usually hatched through bespoke and purposely devised multi-national projects or programmes which are usually funded by international consortia, foundations, agencies or bodies. There are numerous examples to this effect.

An ERA-NET was developed to share examples and information on integrated models of care, methods for transferability of data and innovative practices in health system performance.¹¹³ Another project which utilises big data for comparative performance assessment is the European Collaboration for Health Optimization (ECHO), which is an international effort to bring health care information from several European countries into a single data warehouse, utilising patient data from participating institutions. This project has developed innovative approaches in comparative methodology.¹¹⁴

4.6.2.1.2 Policy making

Intercountry sharing of evidence and performance related data has become essential to sustain a meaningful cross country and inter-regional policy dialogue which

¹¹² 130 HSR Europe. Strengthening the European dimension in health services research. 2013. Pg. 5.

¹¹³ 8 Euro Observer Volume 21, Number 1, 2015 – Reducing inequalities in health and health care. Pg. 29.

¹¹⁴ 90 Bernal Delgado E. ECHO Presentation at HSR seminar, Utrecht. 2014. Slide 3.

depends upon the accumulation and exchange of evidence. This approach has been at the forefront of WHO's impetus to generate a Health in All Policies and its drive to embed this concept into the political decision-making process at all levels.¹¹⁵

One way of ensuring the 'policy space' for embedding the Health in All Policy framework into national and local policy making is through the establishment of international agreements and treaties. The international health regulations, international pharmaceutical standards and other legal instruments are testimony to this development.¹¹⁶

4.6.2.1.3 Data sharing

The sharing of data is essential for international cooperation to succeed, especially in a field which is heavily dependent upon health information, such as is performance assessment. Data sharing is not a new phenomenon. This was common practice in the corporate sector, where businesses operating in the financial, aviation and ICT sectors have long shared data in their daily operations.¹¹⁷ WHO and OECD have long advocated for data harmonisation and data sharing.¹¹⁸ Participants in a meeting organised by OECD in the early years of 2002 had already envisioned a situation where the 'information process' is harmonised across an 'international system' of participating nations. One such proponent stated:

*... but I would also like to emphasise the importance of an international system. The OECD and WHO are presently working on comparing different aspects of health system performance across countries. It would be really helpful if we could have common international standards and common indicators, so that we spoke one single language in comparing performances across countries. How much easier it would be for all of us to look for best practices if comparisons were based on a set of common and reliable indicators.*¹¹⁹

Indeed, this inter-dependability is a potential drawback or weakness if it limits exchange of data and information, but one which can be transformed into a powerful tool if these challenges are overcome. OECD continues to state that '*national*

¹¹⁵ 13 McQueen, DV. *et al.* Intersectoral Governance for Health in All Policies. 2012. Pg. 53.

¹¹⁶ 14 Leppo, K. *et al.* Health in All Policies. 2013. Pgs. 81, 95, 112.

¹¹⁷ 119 Brack, M., Castillo T. (Chatham House). Data Sharing for Public Health - Key Lessons. 2015. Pg. 11.

¹¹⁸ 118 Sane, J., Edelstein, M. (Chatham House). Overcoming Barriers to Data Sharing. 2015. Pg. 3.

¹¹⁹ 73 OECD. Measuring Up. 2002. Pg. 362.

*activities (on their own) do not lead to internationally comparable quality indicators, except by accident.*¹²⁰

4.6.2.2 International/regional comparisons of performance to inform policy

Ever since the publication of the World Health Report in 2000, did governments realise the potential power of comparative approaches as a means to improve health care and devise policies based on international good practice (Braithwaite, et al., 2017). This study has, on several occasions, pressed upon the importance of international comparison of health systems performance as *‘one of the most powerful drivers of health systems improvement by influencing policy-makers*¹²¹.

Since 2003, the OECD has been at the forefront in generating interest in comparative methodologies through their innovative HCQI project, which has developed and tested a range of internationally comparable quality indicators covering various health care domains. With time, the application of these findings has consolidated the use of comparative studies and has increased the potential for cross-country learning. Moreover, comparative evidence is progressively being used as a means to hold politicians to account, where *‘international data play a key role in the accountability agenda when countries can compare their relative performance to other countries.*¹²²

Veillard *et al.* (2009) as cited in Papanicolas and Smith (2013)¹²³ identify three main functions for international health system performance comparison; that of enforcing accountability in politicians and public servants, developing strategies based on evidence as generated through the comparative process and supporting countries in learning from each other.

4.6.2.2.1 The use of composite indicators

Comparative methodology assumes that the data definitions, data collection and data analysis are standardised and use the same parameters. This is the main challenge in international comparative analysis.¹²⁴ Composite indicators offer a broader or

¹²⁰ 74 OECD. The OECD Health Project – Towards High-Performing Health Systems. 2004. Pg. 35.

¹²¹ 12 Papanicolas, I, Smith, PC. Health System Performance Comparison. 2013; pg. ix.

¹²² 78 OECD. Improving Value in Health Care – Measuring Quality. 2010Pg. 13, 27.

¹²³ 12 Papanicolas, I, Smith, PC. Health System Performance Comparison. 2013. Pg. 8.

¹²⁴ 11 Mackenbach JP, McKee, M. Successes & Failures of Health Policy in Europe. 2013. Pg. 278.

helicopter view of how a health system is performing, it adapts more readily to policy objectives, drawing greater attention to policy makers and allowing for increased accountability and transparency.¹²⁵ It allows for easier cross-regional or cross-country comparisons which facilitates the development of league or comparator tables between institutions, regions or countries. On the other hand, composite indicators are known to disguise and hence, miss performance failures in specific areas of the health system. The methodological robustness is also often under question due to the way the composite set is compiled and the application of weights to composite indicators is not yet adequately developed. For these reasons, this methodology is still controversial and needs to be carefully considered.

Many HSPAs make use of composite indicators. Examples of projects using composite indicators include the Commonwealth Fund in the United States, ECHI, the previously deployed Healthcare Commission star ratings in England and the WHO World Health Report produced in 2000,¹²⁶ although proponents of HSPA frameworks have long conflicted between offering single number measures or scores for the whole health system as against different sets of metrics outlining the performance of the singular parts of the whole health system. This is the central argument of developing composite indicators in contrast with single indicators and is the basis on which global ranking of health systems are constructed.¹²⁷

4.6.2.2.2 Comparative evidence for policy making and reforms

There is evidence to show that successful reforms and strategic policy making were informed by performance assessment data and evidence derived from the process of international comparison of health system performance. For instance:

Mexico and Turkey utilised national and international health data to help diagnose the shortcomings in access to health services, in financial protection and in health status that were tackled by the introduction of the 'Seguro Popular' and the 'Health Transformation Programme,' respectively.¹²⁸

¹²⁵ 6 Smith, PC. *et al.* Performance Measurement for Health System 2009. Pg. 340.

¹²⁶ 6c Smith, PC. *et al.* Performance Measurement for Health System 2009; Table 3.4.1.

¹²⁷ 12 Papanicolas, I, Smith, PC. Health System Performance Comparison. 2013.

¹²⁸ 80 Hurst, J. Effective Ways to Realise Policy Reforms in Health Systems. OECD. 2010. Pg. 25.

There is evidence to show that real *‘efficiency gains in health systems result from international benchmarking and comparisons across pair countries – i.e. within groups of countries sharing similar institutions.’*¹²⁹

Comparative performance assessment was instrumental for England to overhaul its cancer services. Evidence that emerged from the Eurocare studies in the late 1990s showed that the UK was trailing in cancer care and survival rates. Acknowledging this, the government launched a major drive (NHS Plan) to improve cancer care and lower mortality rates to comparable acceptable levels.¹³⁰ Bilateral comparative exercises have also been used to inform policy or to compare the outcomes of reforms. In fact, major reforms have often been used as a platform to undertake comparative research and to link reforms with performance assessment. One such study was followed by the Dutch who carried out extensive reforms contemporaneously with the Canadian province of Ontario. Both regions developed HSPAs to compare the outcomes of their respective reforms.¹³¹

4.6.2.3 Challenges in comparative policy making

Although comparative policy making is a powerful and effective tool at the disposal of the policy maker, its application is not without challenges, some of which are significant. It is important for all to recognise these difficulties, to either circumvent them or factor them in when interpreting the data.

4.6.2.3.1 Methodological pitfalls

Comparative policy making presents certain methodological challenges. These include the lack of proper definitions, incompleteness and opportunistic selection of indicators. There are also security issues, data confidentiality and technical problems which all need to be overcome to allow countries to compare ‘notes.’ Data standardisation and standard operating procedures are being formulated and a consensus based on international best practices is growing.¹³² However, even though international organisations understand and push for these solutions, they still require

¹²⁹ 79 OECD. Health Care Systems - Efficiency and Policy Settings. 2010Pg. 142.

¹³⁰ 12 Papanicolas, I, Smith, PC. Health System Performance Comparison. 2013. Pg 3.

¹³¹ 6 Smith, PC. *et al.* Performance Measurement for Health System 2009. Pg. 650.

¹³² 123 WHO (Europe). The European health report 2009. 2009. Pg. 146.

ownership from their respective member states and *‘broad international cooperation is required to tackle current health information challenges efficiently and sustainably. Countries should drive the priority-setting for such international research and development activities.’*¹³³

4.6.2.3.2 Contextual factors

The contextual elements of health systems and their distinctive environments should be taken into consideration before conclusions are reached using the comparative approach. As stated by Papanicolas and Smith (2013, p. 335) *‘comparisons can be misleading when not accompanied by an understanding, or explanation, of key differences in national settings, leading to the potential for important misinterpretation.’* Hence, whilst international comparative performance information can serve as inputs for national strategy development, caution needs to be exercised due to potential hidden political agendas and a phenomenon known as ‘selective perception’ which can distort the available evidence.¹³⁴

Just as comparative measurement could be a powerful tool in the hands of experienced policy makers, it could also be deleterious to unseasoned decision makers.¹³⁵ Many authors draw attention to the danger that comparison can lead to serious policy errors if not accompanied by careful consideration of the contextual factors and reforms within which the HSPA operates. This is important to avoid what is termed as *‘policy abuses of comparative measures’*¹³⁶.

4.6.3 The political process

The literature shows that policy formulation is a complex enduring process, involving a myriad of factors that are not necessarily evidence-based nor are derivatives of performance assessment frameworks. Indeed, Green and Bennett (2007)¹³⁷ succinctly points out that *‘a tension clearly exists between a naive representation of a simple*

¹³³ 140 WHO (Europe). The European health report 2015. 2015. Pg. xiv.

¹³⁴ 6 Smith, PC. *et al.* Performance Measurement for Health System 2009. Pgs. 644-645.

¹³⁵ 128 Hofmarcher, MM. Smith, PC. (eds.). The Health Data Navigator. EuroREACH. 2013. Pg. 10.

¹³⁶ 12 Papanicolas, I, Smith, PC. Health System Performance Comparison. 2013; pg. 2.

¹³⁷ 94 Green A., Bennett S. Sound choices-enhancing capacity for evidence-informed health policy. WHO. 2007. Pg. 39.

linear relationship between evidence and policy, and an overly complex depiction with a multitude of variables suggesting no real opportunity for a rational process.'

Gollust *et al.* (2014), as cited in IOM's opinion piece, found that even when policy makers have all the required information at hand, they may still not use this evidence to take important decisions. This is the case in many instances when dealing, for instance, with obesity, alcohol, nutrition policies etc.¹³⁸ Indeed, the evidence generated through the performance assessment process is '*often contested and viewed differently by different actors at different stages in policy development.*'¹³⁹ The policy making function is the crucial end-point of the HSPA process. This theme covers the art of policy making in relation to HSPA.

4.6.3.1 Models of policy making

Whilst models of policy making have already been elucidated in the literature review (Warner & Bjarkman, 2011), this sub-theme provides a particular focus on the link between policy development and performance assessment.

Kingdon's multi-stream or non-linear policy framework is used by many exponents in health policy circles showing there needs to be alignment between the 'problem,' potential policy solutions and the political will or commitment to effect change (Cairney & Jones, 2016). This trio of conditions allows for the creation of a 'window of opportunity' that helps shape long-term policy-making.¹⁴⁰

Mackenbach and McKee (2013) also reiterate that policies are formulated within a specific context, where a 'window of opportunity' or 'policy window' needs to present itself, usually in the form of a '*scandal, a disaster or an individual tragedy that creates popular demands for action, causing politicians to search for some way that they can be seen to respond.*'¹⁴¹

¹³⁸ 136 Bayer E & Thompson D. (Rapporteurs). Communicating to Advance the Public's Health. IOM. 2015. Pg. 37.

¹³⁹ 94 Green A., Bennett S. Sound choices-enhancing capacity for evidence-informed health policy. WHO. 2007. Pg. 22.

¹⁴⁰ 14 Leppo, K. *et al.* Health in All Policies. 2013; pg. 16.

¹⁴¹ 11 Mackenbach JP, McKee, M. Successes & Failures of Health Policy in Europe. 2013; pg. 320.

There is general agreement that evidence-based medicine follows the rationalist approach, using established scientific methodologies to determine the safest and greatest value treatment. On the other hand, evidence-based management, and by extrapolation, evidence-based policy utilises more of an ‘incremental approach,’ supplementing existing evidence.

The ‘contingency approach’ is also advocated where management and policy solutions that work in one situation may not necessarily be effective in another. This situational or contextual dimension to policy formulation creates significant challenges in applying evidence from one context to another¹⁴².

4.6.3.2 The political prerogative

Politics is intimately intertwined with performance assessment and accountability and it is important to understand and acknowledge this reality.

4.6.3.2.1 Sharing of politically sensitive data

Sharing politically sensitive data can be problematic. Performance data, like outbreak data, is classified as politically sensitive data and, given that national governments are well aware of these potential sensitivities, are usually reluctant to share data with other countries and regions. It is only when the benefits outweigh the risks that governments warm up to the idea of sharing data. Indeed, reluctance to share data in a timely, orderly and structured manner has been responsible for the spread of communicable diseases and the lack of safeguards to contain infectious diseases, such as the outbreaks of SARS in China and the Ebola outbreak in West Africa.¹⁴³

4.6.3.2.2 Policy instruments

Whilst this study refers to the process of policy making several times, it would be appropriate to understand that there are many forms of policy instruments that can be realised. Political declarations in ministerial and international conferences are commonly used. Collaborative and action programmes provide space for networking and sharing best practices. Directives, legislation, norms and standards are commonly

¹⁴² 132 Rosen, B. *et al.* The Fourth International Jerusalem Conference on Health Policy. 2009. Pg. 258.

¹⁴³ 118 Sane, J., Edelstein, M. (Chatham House). Overcoming Barriers to Data Sharing. 2015. Pg. 3.

used policy instruments both at national and international level. International, multilateral and bilateral agreements, treaties and covenants are also extensively used. Arbitration, litigation and judicial review also determine policy, although not always in the direction that is expected.¹⁴⁴

Another policy instrument that is commonly used in parliamentary democracies is reports to parliamentary select committees and sittings. This is a common feature of the British political landscape. The Report on Health Inequalities and the response of the Secretary of State for Health to the criticisms that arose from this report clearly demonstrates how performance assessment and the production of evidence have a powerful and profound impact upon the political process.¹⁴⁵

4.6.3.2.3 Politics that work

The public health policy cycle assumes a traditional cyclical process, in which evidence and assessment informs policy development. The policy is then implemented and evaluated, after which the policy is adjusted, and the cycle starts again (Institute of Medicine, 1988). However, experience, if not evidence, has shown that this portrayal of policy formulation is naïve at best, inadequate at worst. Whilst analysis and the generation of evidence are important factors to consider, they are certainly not enough.

*Public health promoters who rely on classic knowledge transfer techniques and try to convince policymakers to pass legislation often fail because policy change is often achieved through coalition- building, mobilizing public opinion, lobbying and influencing political values, and not through disseminating research findings alone.*¹⁴⁶

Hence ‘old assumptions that the outputs of research will feed cleanly into policy-making are now widely accepted as naïve. It is clear that the links and dynamics between research and policy-making are complex and only partially understood.’¹⁴⁷

¹⁴⁴ 125 Rechel, B., McKee M. (Eds). Facets of Public Health in Europe. EOHSP. 2014. Pg. 101.

¹⁴⁵ 108 Secretary of State for Health, England. Report on Health Inequalities. May 2009. Pg. 7.

¹⁴⁶ 125 De Leeuw and Clavier 2011 as cited in 125 - Rechel, B., McKee M. (Eds). Facets of Public Health in Europe. EOHSP. 2014. Pg. 209.

¹⁴⁷ 94 Green A., Bennett S. Sound choices-enhancing capacity for evidence-informed health policy. WHO. 2007. Pg. 93.

Weiss, as cited in WHO (2012)¹⁴⁸, discusses the influence that politics plays on assessment and evaluation. ‘*Evaluation is a rational enterprise that takes place in a political context.*’ He concludes that political factors ‘interfere’ in the evaluative process in several ways, if interference is the right term to use. First of all, assessment of programmes and policies is a political process in itself and hence cannot be divorced from the political reality of the day. Secondly the results of any evaluation, including that of performance assessment resulting from HSPA, are fed into the policy making melting pot and compete with other priorities for political attention.

Weiss also believes that the act of assessment is, in itself, a political act, since it makes explicit declarations which certainly have political connotations. This concept is further reinforced by Sandberg *et al.* (2015)¹⁴⁹ in stating that the ‘*first myth was that expert knowledge is always neutral and politics is always conflicted. The second was that failures of governance happen when policy-makers let political interests override evidence-based solutions.*’

4.6.3.2.4 Political accountability and power of performance assessment

The political process is about accountability. Whilst policy makers are accountable to the public, the available information to pass ‘judgement’ on politicians is surprisingly limited or not factually grounded. Academics and researchers refer to this information as ‘evidence’ but its comprehension by the public is a measure of its usefulness. Evidence on policies that work and those that do not work is usually highly technical and difficult to grasp. However, some authors, whilst acknowledging that politics is very complex and difficult to assess, suggest that tools such as:

*HTA provides transparency and thereby offers a foundation for ensuring accountability for government decisions and performance. In particular, citizens can gain more insight into arguments for and against the decisions made and can use this information to evaluate the legitimacy of the policymakers.*¹⁵⁰

¹⁴⁸ 53 WHO (Europe). Pathways to Health System Performance Assessment. 2012. Pg. 58.

¹⁴⁹ 95 Sandberg K. *et al.* Lessons for Global Health from Global Environmental Governance. 2015. Pg. 9.

¹⁵⁰ 10 Garrido, MV, *et al.* Health Technology Assessment and Health Policy Making in Europe. 2008. Pg. 25.

Whilst this all seems very well, it is indeed hard to appraise how lay people would be able to gain insight into the results and the meaning of HTAs. The same could be said of HSPA unless this information is ‘translated’ into a language that could be assimilated easily, although *‘with more data in the public domain, ministers (and policy makers) become subject to more external challenges.’*¹⁵¹

Performance assessment is a powerful tool and it therefore comes as no surprise that performance assessment and HSPA could be perceived as either a threat or a benefit, depending which point of view is taken.

*The political nature of performance measurement is an inevitable consequence of its power to challenge vested interests within the health system. There is an enormous range of interest groups. Performance information often serves the interests of some of these groups but will also challenge others.*¹⁵²

4.6.3.2.5 Political commitment to the HSPA process

Politicians are not, as yet, fully committed to the HSPA paradigm. Several case studies have noted the lack of political commitment to utilise the results of the HSPA process for policy making or decision taking. The reasons cited are several; from a lack of understanding to a lack of prominence of the HSPA process in political circles.

Raising the profile of HSPA among the political class by making it more relevant to their needs and aligning the applications of HSPA to their own perspectives is required. Still, many *‘case studies show that initial HSPA objectives (such as increased transparency and accountability or creating an evidence base to inform policy) tend to be overly ambitious.’*¹⁵³ The EU structures have also shown commitment towards performance assessment and HSPA.

The Italian Presidency, in one of its reports, has summarised the conclusions of the Council of Health ministers stating that *‘more attention at national level should be given to the outcomes that health systems deliver. To achieve this, it will be necessary*

¹⁵¹ 73 OECD. Measuring Up. 2002. Pg. 355.

¹⁵² 6 Smith, PC. *et al.* Performance Measurement for Health System 2009. Pg. 698.

¹⁵³ 116 WHO (Europe). Case Studies on HSPA. 2012.

*to develop indicators and promote the use of Health System Performance Assessment.*¹⁵⁴

4.6.3.3 Reforms

HSPA has a dual connection with reforms. On the one hand, HSPA spurs on reforms and changes in policies by providing the required evidence and data. This is its primary purpose, where *‘without performance information, there is no evidence with which to design health system reforms.*¹⁵⁵ On the other hand, HSPA also measures the impact of reforms and changes in policies, once instituted.¹⁵⁶ This cycle places HSPA and, performance assessment in general, at the centre of reform activity. However, not all countries use HSPA or performance data as a basis of their reforms.

In fact, evidence suggests that even though there are political and economic imperatives to institute far-reaching reforms, still not all countries base these reforms on the available evidence base.¹⁵⁷ A possible exception is England where the *‘NHS Performance Framework was also developed in accordance with the Department’s principles for change.*¹⁵⁸

HSPA invariably accompanies the development and implementation of national health strategies and reform plans, such as in Armenia and Turkey. In Armenia, reforms of their primary care sector and hospital services were one of the priorities of its HSPA,¹⁵⁹ whilst WHO (Europe), the Ministry of Health of Turkey and the World Bank all *‘consider HSPA to be an effective tool for steering Turkey’s ongoing health reform.*¹⁶⁰ The HSPA process in Estonia and Portugal was also part of the wider strategic process.¹⁶¹

Hofmarcher and Smith (2013) believe that *‘if undertaken carefully, health system performance comparison offers a powerful resource for suggesting relevant health*

¹⁵⁴ 139 ERRIN 15. Enhancing Value in European Health Systems - The Role of Outcomes Measurement. 2016. Pg. 10.

¹⁵⁵ 6 Smith, PC. *et al.* Performance Measurement for Health System 2009. Pg. IX.

¹⁵⁶ 53 WHO (Europe). Pathways to Health System Performance Assessment. 2012. Pg. 15.

¹⁵⁷ 130 HSR Europe. Strengthening the European dimension in health services research. 2013. Pg. 8.

¹⁵⁸ 36 DOH (UK). The NHS Performance Framework: Implementation guidance. 2012. Pg. 8.

¹⁵⁹ 150 WHO (Europe). Armenia Health System Performance Assessment, 2009. 2009. Pg. 19.

¹⁶⁰ 54 WHO (Europe). Turkey Health System Performance Assessment 2011. 2012. Pg. 1.

¹⁶¹ 116 WHO (Europe). Case Studies on HSPA. 2012. Pg. 4, 9, 44.

*system reforms.*¹⁶² OECD's exposition on reforms provides several insights into the relationship between HSPA and reforms. HSPA provides the required evidence to justify reforms as mandated by the electorate where *'effective communication, underpinned by solid research, can help secure such a mandate.'*¹⁶³

4.6.3.4 Factors other than performance assessment that affect policy making

There is a myriad of other non-performance related factors that affect policy making, as outlined in detail below.

4.6.3.4.1 Mediating factors influencing policy

There are several extraneous or mediating factors that 'compete' (with evidence) for the policy maker's attention. These mediating factors include organisational factors, professional attitudes, personal experiences, inter-personal relationships, local political issues, resource availability, and existing national and/or organisational policies and priorities. Some would argue that the available evidence and other non-evidentiary factors are not mutually exclusive but should complement, if not augment, each other and that policy makers need to consider all possible angles and permutations before reaching policy conclusions. This obliges policy makers to have a more critical outlook and not accept evidence 'at face value.' They need to *'continuously interpret and (re)construct the evidence in some way, according to one's own professional identity, organisational role, team members and audience, and organisational objective.'*¹⁶⁴ Kyratsis *et al.* (2014) continue to state that *'far from being merely technical or 'scientific', we found this process to be highly iterative and 'messy.'*¹⁶⁵

4.6.3.4.2 Influence by stakeholders, including the public

Civil society plays a persuasive part in the formulation of any policy, but health policy is particularly prone to such influence. The health sector is teeming with numerous patient and disease-oriented groups and organisations, which all have a level of

¹⁶² 128 Hofmarcher, MM. Smith, PC. (eds.). The Health Data Navigator. EuroREACH. 2013. Pg. 10.

¹⁶³ 77 Making Reform Happen – Lessons from OECD Countries. OECD. 2010. Pg. 17.

¹⁶⁴ 127 Kyratsis Y. *et al.* Making sense of evidence in management decisions. Health Serv Deliv Res 2014. Pg. Xxiii.

¹⁶⁵ 127 Kyratsis Y. *et al.* Making sense of evidence in management decisions. Health Serv Deliv Res 2014. Pgs. 23-32.

influence on the mind sets of policy makers, who have learnt not to ignore their pleas and desires (Sabi & Rieker, 2017). However, rather than viewing these ‘incursions’ as a distraction, civil society can also be the source of important pieces of evidence that indeed should be taken in consideration as part of the policy making process (Bruen & Brugha, 2014).

Civil society acts as mediators in bringing relevant issues to the attention of both researchers and policy makers, highlighting *‘issues overlooked by politicians but which are a matter of concern to the public.’*¹⁶⁶ However, competing elements could derail the policy process leading to ‘policy paralysis,’ such that *‘public policy is an iterative process that is historically layered and path dependent, but always characterized by competing interests within and outside government.’*¹⁶⁷ On the other hand, involvement of the public spurs on the debate and forces a hand on policy makers to descend from the fence, compelling them to take decisions. This *‘level of involvement, or the degree of influence that the public will have in the policy-making process is known as the ladder of citizen participation,’* first coined by Arnstein in 1969.¹⁶⁸ Other ‘influencers’ include government agencies, networks and policy bodies, professional groups, elected officials and public servants and insurance and other funding bodies.¹⁶⁹

4.6.3.4.3 National and international politics

Local, regional or national policy is increasingly being dictated by external or international actors and factors. These include the Ministry of Finance which indirectly steers health policy through decisions on allocation and allotment of financial and other resources as well as through fiscal policy. Member states of the European Union, World Health Organisation, OECD and other international organisations are obliged, in a wide variety of ways, to align their domestic health policies with international law, norms or regulations. However, reassuringly, most of these agencies promote and support the use of evidence-based tools and methods.¹⁷⁰

¹⁶⁶ 11 Mackenbach JP, McKee, M. Successes and Failures of Health Policy in Europe. 2013. Pg. 318.

¹⁶⁷ 13 McQueen, DV. *et al.* Intersectoral Governance for Health in All Policies. 2012. Pg. 10.

¹⁶⁸ 13 McQueen, DV. *et al.* Intersectoral Governance for Health in All Policies. 2012. Pg. 153.

¹⁶⁹ 15 Lavis, JN. *et al.* Knowledge brokering. Bridge Series. EOHSP. 2013. Pg. 8.

¹⁷⁰ 14 Leppo, K. *et al.* Health in All Policies. 2013. Pg. 20.

External or foreign funding agencies and donors can also influence domestic health policy through the regulation and allocation of funding and loans which are usually entwined with specific reforms and/or programmes.¹⁷¹ The international economic climate also affects national policy making.

The 2008 financial crisis impacted negatively upon investment in health and there is growing evidence to show how this crisis changed the health status and health outcomes in those countries mostly affected.¹⁷²

4.6.3.5 Consequences of using performance information and evidence

As with most other tools, the use of HSPA and other performance assessment tools has intended, and sometimes, unintended consequences (benefits & dis-benefits). This ‘collateral damage’ may shape the deployment of performance assessment systems within the health system (Mannion & Braithwaite, 2012).

HSPA brings ‘warring factions’ together. In a decentralised health care system, HSPA has been known to provide convergence and unison between different sectors, areas or regions. It seems to have the propensity of building *‘a common understanding among different institutions of how the system performs and helps build consensus on priorities for the future.’*¹⁷³

The availability of evidence through empirical research and political gain are strange bed fellows. On the one hand, evidence can, and indeed should, be used to gain political insight to tackle difficult policy issues. However, it can, but should not be, used for political gain, *‘to retrospectively justify or clarify policy decisions that have been taken already.’*¹⁷⁴ This ‘cherry picking’ is commonplace amongst politicians to fit their own agendas, although many decision makers still yearn for objective evidence-based advice. Evidence is invariably also used (and abused) in political debates, to advance or denigrate an argument or view. Researchers who have been in

¹⁷¹ 94 Green A., Bennett S. Sound choices-enhancing capacity for evidence-informed health policy. WHO. 2007. Pg. 24.

¹⁷² 87 EPHA. Position Paper - Reforming Health Systems in Times of Austerity. 2013.

¹⁷³ 116 WHO (Europe). Case Studies on HSPA. 2012. Pg. 15.

¹⁷⁴ 93 Alliance for Health Policy and Systems Research, Geneva. Strengthening health systems. 2004. Pg. 52.

the game for long are aware of these tactics and usually steer clear of controversies that are not necessarily grounded in evidence.¹⁷⁵

Perhaps the most compelling reason to ensure policy is well-grounded in evidence is clearly spelled out by the British Secretary of State for Health in his report on inequalities wherein he claimed that:

*... there is an ethical imperative to develop and use evidence-based policy. All the reforms we have discussed are experiments on the public and can be as damaging (in terms of unintended effects and opportunity costs) as unevaluated new drugs or surgical procedures. Such wanton large scale experimentation is unethical, and needs to be superseded by a more rigorous culture of piloting, evaluating and using the results to inform policy.*¹⁷⁶

4.6.3.6 Concluding remarks

Some may wonder why evidence-based solutions to problems are not implemented in practice. From the above-discussed themes, we have seen that policy making is a dynamic, fluid process, involving a myriad of actors with different agendas.¹⁷⁷ We have also deduced that policy is influenced by many factors, not all of which are grounded in evidence. If a wider interpretation of evidence is considered, beyond the narrower scientific definition, one can argue that all factors indeed contribute to providing the required evidence to take the correct policy decisions. This paradigm shift moves beyond ‘*evidence-based public health*,’ to ‘*evidence- informed public health*,’ which ‘*acknowledges more explicitly the multitude of factors that influence public health decisions*.’¹⁷⁸ This is a fundamental consideration to understand the role that HSPAs have in future policy making. The Alliance for Health Policy and Systems Research in Geneva summarises these concluding remarks very succinctly by stating that:

... an overview of decision-making processes provides insights into the role of information, and in particular, information from health systems research in decision making in the health system. Policy-making is a complex and essentially political process that is influenced by several factors.

¹⁷⁵ 130 HSR Europe. Strengthening the European dimension in health services research. 2013. Pg. 6.

¹⁷⁶ 108 Secretary of State for Health, England. Report on Health Inequalities. May 2009. Pg. 8.

¹⁷⁷ 14 Leppo, K. *et al.* Health in All Policies. 2013. Pg. 5.

¹⁷⁸ 125 Rechel, B., McKee M. (Eds). Facets of Public Health in Europe. EOHSP. 2014. Pg. 303.

*The full complexity of health policymaking is revealed in frameworks that combine the various factors, and it is then clear that information generated by research is but one among the several competing factors. Recognition and understanding of decision-making processes and factors that influence the process can increase the potential for inserting research information into the process.*¹⁷⁹

4.7 Improving health care delivery through performance monitoring

Performance assessment is an integral part of the performance improvement cycle. The link between performance monitoring and service improvement is well documented and does not require any further elaboration. However, the document analysis revealed numerous instances of how performance assessment and HSPA has also been utilised for the improvement of care, including the quality of care and advances in integrated care. This theme covers aspects of performance improvement as driven by performance assessment in general and HSPA in particular.

4.7.1 Performance assessment as a tool for service improvement

The literature review disclosed several examples of the link between performance assessment, HSAs and service improvements. This relationship is well-documented and has been utilised for the benefit of service providers and their patients (Bramsfelda, et al., 2016); (Schwartz & Deber, 2016).

4.7.1.1 Use of HSPA frameworks for service improvement

Given the importance of HSAs in improving services, this section looks specifically at this angle in contrast to their application for policy making. WHO have recognised the importance of using HSPA for health system improvement stating that:

*... improving the performance of countries' health systems is a priority issue across the European Region, especially in the current economic climate in which obtaining the greatest value from existing resources is paramount. In this regard, health system performance assessment is a recognized approach among the countries in the WHO European Region.*¹⁸⁰

¹⁷⁹ 93 Alliance for Health Policy and Systems Research, Geneva. Strengthening health systems. 2004. Pg. 51.

¹⁸⁰ 123 WHO (Europe). The European health report 2009. 2009. Pg. 141.

On the other hand, WHO also acknowledges that whilst many WHO member states have introduced facets of HSPA into their governance structures, few, however, have integrated HSPA to the extent of producing tangible improvements in performance.

4.7.1.2 Performance monitoring and improvement

Performance assessment and monitoring in health has come to a head since the financial crisis of 2008. Prior to this, health was not considered worthy of debate and analysis in economic and financial circles. Ever since high and medium income countries started to face significant challenges in managing their health care expenditure and in meeting ever increasing demands, interest in the performance and efficiency of health systems has soared, leading to a concomitant surge in the development and deployment of performance tools and mechanisms.¹⁸¹ The EU is also pushing for greater efficiency and effectiveness, which requires well-developed performance assessment tools to ensure that *‘European health systems meet their targets in delivering the expected outputs (effectively and efficiently).’*¹⁸²

4.7.1.2.1 HSPA and performance improvement

Most of the literature on HSPA relates to its role in monitoring performance for improvement purposes. There is ample evidence that shows how performance assessment is the main mechanism for setting targets and improving health services. In one of its white papers published in 2011, the English Department of Health was convinced of the usefulness of using performance assessment for improvement; *‘there is compelling evidence that better information also creates a clear drive for improvement in providers.’*¹⁸³

Rechel and McKee (2014)¹⁸⁴ considers *‘HSPA (as) a concept that is closely related to, and partially overlaps, general public health monitoring.’* According to the President of the Royal College of Physicians, the *‘regular measurement and publishing of outcomes leads to better patient care.’*¹⁸⁵

¹⁸¹ 113 EC. Comparative efficiency of health systems (MACELI). 2015. Pg. 75.

¹⁸² 4 Working Party on Public Health at Senior Level - Report by sub-group 5: Health investments. 2013. Pg. 9.

¹⁸³ 41 DOH (England). Equity and excellence: Liberating the NHS. 2010. Pg. 14.

¹⁸⁴ 125 Rechel, B., McKee M. (Eds). Facets of Public Health in Europe. EOHSP. 2014. Pg. 24.

¹⁸⁵ 133 Anne Gulland. English Health Secretary Unveils 60 Performance Indicators. BMJ. 2011. Pg. 1228.

4.7.1.2.2 Resources/information needed for performance improvement

Providing evidence for system improvement is not straight forward. Although many mechanisms are in place throughout various health systems, countries that embark upon the HSPA path to generate the required evidence for service improvement or policy making find that significant resources and commitment are necessary. The Portuguese national health plan describes this well, explaining that the Office of the High Commissioner for Health instituted a series of capacity building steps to create and sustain a performance assessment model and inculcate a ‘*culture of continuous performance improvement*.’¹⁸⁶

The European Regions Research and Innovation Network (ERRIN) project has clearly concluded that to improve a health system, access to information on its performance is required.¹⁸⁷ However, most of the data required to generate the evidence on performance of health systems emanates from personal patient data. The ‘*collection, analysis, linkage and reporting of results from personal health data is assets for health care quality monitoring and improvement, population health policy, and health system performance measurement and evaluation*.’ This, of course, presents data protection, governance, legal and technical challenges, which if overcome, will generate ‘*new evidence to improve population health, health care quality and the performance of the health system*.’¹⁸⁸

4.7.1.3 Accountability

Performance assessment provides a platform for the generation of an accountability environment, especially in publicly-funded health care systems.

4.7.1.3.1 Political accountability

The overriding purpose of England’s Outcomes Framework is one of accountability. One could say that the English are somewhat gripped by the need to monitor and hold people and organisations to account. This is clearly stated in the Health Secretary of State’s statement when unveiling 60 new NHS performance indicators in 2011. He

¹⁸⁶ 44a MOH (Portugal). National Health Plan 2012 – 2016. 2012. Pg. 8.

¹⁸⁷ 139 ERRIN 15. Enhancing Value in European Health Systems: The Role of Outcomes Measurement. 2016. Pg. 4.

¹⁸⁸ 82 OECD. Strengthening Health Information Infrastructure for Health Care Quality Governance. 2013. Pgs. 26, 149.

explicitly declared that these (and other) performance indicators will be used to *'hold the NHS Commissioning Board to account.'*¹⁸⁹

Similar performance mechanisms have been employed in the Netherlands, where its health care performance report, a product of its HSPA, holds politicians to account as it regularly reports on progress achieved in the performance of its health system. This is formalised on an annual basis when the Minister responsible for health reports to parliament, using the Dutch health care performance report as the basis for the discussion.¹⁹⁰ The French Ministry of Health also produces an annual performance report (*Rapports Annuels de Performances*) reviewing the results of the previous year based on indicators in specific domains.¹⁹¹

4.7.1.3.2 HSPA's role in garnering accountability

WHO refers to HSPA as the 'steward' of transparent and accountability within a health system. It believes that the advent of HSPA has introduced a new accountability paradigm by stating that *'health system performance assessment corresponds to a performance accountability approach grounded in management science, which aims at demonstrating and accounting for performance in light of agreed-upon performance targets ...'*¹⁹²

This was further elaborated at an international conference in Jerusalem which declared that:

*... professionals and politicians could rely no longer on their ex cathedra authority and their professionalism to secure public support. Their performance began to come under scrutiny ... and the professionals were now obliged to fulfil measurable and quantitative definitions of performance.*¹⁹³

¹⁸⁹ 133 Anne Gulland. English Health Secretary Unveils 60 Performance Indicators. BMJ. 2011. Pg. 1228.

¹⁹⁰ 154 van den Berg M *et al.* The Dutch health care performance report. Health Research Policy & Systems 2014. Pg. 4.

¹⁹¹ 101 Chevreul K. *et al.* HiT France. 2015. Pg. 191.

¹⁹² 151 WHO (Europe). Estonia Health System Performance Assessment, 2009. 2010. Pg. 19.

¹⁹³ 132 Rosen, B. *et al.* The Fourth International Jerusalem Conference on Health Policy. 2009. Pg. 15.

4.7.1.3.3 European model of accountability

Consortium partners in the ERRIN project concluded that there is ‘*stronger focus on the outcomes of health systems to improve the quality of care and public health - and a clear demonstration of the importance of measuring those outcomes for greater transparency and accountability for health system performance.*’¹⁹⁴ They claim that this is driven by Europe’s increasing reliance on monitoring and measuring results and outcomes, especially when utilising EU funded initiatives.

Following the launch of Health 2020, the policy document contemplates the monitoring of progress towards the proposed health targets, as a prelude to hold each member state accountable towards these goals.¹⁹⁵ Indeed, WHO Europe regularly ascertains how many of its members have aligned their national policies to Health 2020, as well as the proportion of countries that have installed accountability mechanisms. The European Health Report of 2015 calculates that there was an increase from 58% in 2010 to 75% in 2013 in the proportion of countries aligning their policies with Health 2020.¹⁹⁶ WHO is also apt at regularly producing performance reports on environmental health on its member states, providing recommendations for improvement and increased.¹⁹⁷

4.8 National and international perspectives

Many of the documents reviewed provide an account of the experiences of different countries, as well as inter-regional and international collaborations on HSPA. This theme discusses the role that national and international organisations have in promoting HSPA and delineates several good practice cases at national and international level.

4.8.1 Promoting performance assessment

Not all countries automatically promote the use of performance assessment and associated methods and tools. This very much depends on the maturity of the health

¹⁹⁴ 139 ERRIN 15. Enhancing Value in European Health Systems: The Role of Outcomes Measurement. 2016. Pg. 4.

¹⁹⁵ 145 WHO (Europe). Regional consultation on targets and indicators for Health 2020 monitoring. 2013. Pg. 1.

¹⁹⁶ 140 WHO (Europe). The European health report 2015. Pg. 45.

¹⁹⁷ 147 WHO (Europe). Summary overview of environment and health performance reviews. 2009. Pg. 12.

system in question and the experience in using performance assessment for service improvement and policy making.

4.8.1.1 Promoting performance assessment across Europe

The European Union has many means at its disposal to monitor and facilitate performance assessment. Whilst some would argue that these instruments intrude upon the national competencies of member states, they do keep health systems in check, especially in matters of fiscal sustainability and efficiency, as well ensuring equitable access to quality health care across the board. The current EU Commissioner for Health's mandate specifically includes the development and consolidation of HSPA across the EU.¹⁹⁸

Several declarations of Councils of Ministers have emphasised the need to strengthen health systems through better performance management and monitoring. This invariably led to various initiatives to promote HSPA in numerous member states and has also led to the creation of an EU Unit dedicated wholly to the promotion of HSPA in the EU.¹⁹⁹

Furthermore in 2012, CION set up an important multi-sectoral and independent expert panel to provide advice on effective ways of investing in health.²⁰⁰ Country Specific Recommendations is another EU mechanism that mandates CION to obtain and analyse performance-related data generated at local level through member states. This encourages cross border exchange of performance related data.²⁰¹ There is also significant collaboration amongst European countries towards HTA processes through the EUnetHTA initiative.²⁰²

On the other hand, whilst the EU can boast of several performance indicator models, these may create confusion and duplication of effort, which is why the Euro Observer

¹⁹⁸ 139 ERRIN 15. Enhancing Value in European Health Systems: The Role of Outcomes Measurement. 2016.

¹⁹⁹ 1 Informal meeting of Health Ministers. Discussion paper. 2015. Pg. 1.

²⁰⁰ 2 EU. On Effective, accessible and resilient health systems. 2014. Pg. 12.

²⁰¹ 3 Seychell M, Hackbart B. The EU health strategy – investing in health. Public Health Reviews. 2013;35. Pg. 4.

²⁰² 10 Garrido, MV, *et al.* Health Technology Assessment and Health Policy Making in Europe. 2008. Pg. 8.

laments that Europe still lacks a ‘*comprehensive health information infrastructure and well-established governance mechanisms on the EU-level*.’²⁰³ In response to this state of affairs, CION has been actively considering the creation of a European research infrastructure consortium (ERIC) on health information, although this has not yet gained the desired momentum.

The European Regional Office of WHO has also been a major proponent of HSPA over the past two decades, wherein WHO considers the improvement of the performance of health systems as one of its key priorities. This bourgeoned following the 2008 economic crisis where health systems were suddenly propelled into the limelight, with calls for greater efficiency, sustainability and resilience, which in turn led to the Tallinn Charter in 2008, citing HSPA as the main instrument to implement the Charter.²⁰⁴

4.8.1.2 Role of national organisations

National organisations, from the public, private and voluntary sectors, have a key role of developing and promoting performance assessment. This section outlines this role and the type of organisations involved.

4.8.1.2.1 England

England provides a rich, if not eye-opening, illustration of how several national organisations have been created, dissolved, re-packaged and re-shaped in line with the political exigencies of the government of the day. The more stable, tried and tested agencies, such as the Cochrane Library and the National Institute for Health and Care Excellence (NICE) contrast sharply with several other organisations which have transformed over time, such as the National Service Frameworks, NHS Evidence, the National Patient Safety Agency, the NHS Institute for Innovation and Improvement, the Academic Health Sciences Centres and the Biomedical Research Centres and Units amongst others. These were all established with the primary aim to promote the translation of research knowledge into clinical practice and policy.²⁰⁵ The latest

²⁰³ 8 Euro Observer Volume 21, Number 1, 2015 – Reducing inequalities in health and health care. Pg.18.

²⁰⁴ 53 WHO (Europe). Pathways to Health System Performance Assessment. 2012. Pg. V.

²⁰⁵ 127 Kyratsis Y. *et al.* Making sense of evidence in management decisions. Health Serv Deliv Res 2014. Pg. xxii.

addition to the UK's arsenal of research-based policy organisations is the National Institute for Health Research.²⁰⁶

4.8.1.2.2 Organisations in EU member states

Small EU countries usually have one or perhaps two key organisations involved in the collection and dissemination of performance data. Belgium boasts of the KCE, which is an independent scientific institute established by law with a '*mandate to support health and health services policy and decision making in the Belgian health-care and health insurance systems*' and responsibility for Belgium's HSPA.²⁰⁷ Its success is largely attributed to the political commitment of the federal Government in sustaining this organisation, whilst maintaining a certain distance guaranteeing its autonomy.²⁰⁸ The Dutch National Institute for Public Health and the Environment (RIVM) is particularly active in performance measurement, participating in several benchmarking and comparative exercises which then invariably feeds into the performance assessment of the Dutch health care system.²⁰⁹

The Nordic countries are leaders in the establishment of national organisations responsible for providing unbiased evidence-based advice on policies to national governments and legislative bodies. The NOKC has already been mentioned in a previous section, as an organisation that has been successful in providing the evidence base for policy makers in Norway.²¹⁰ Norway's neighbour has a similar structure in the form of the National Institute for Health and Welfare in Finland, which is responsible to brief parliament on issues of national import,²¹¹ whilst the Danish National Board of Social Services also has the mandate to inform policy based on evidence and to act as a 'clearing house' of the available research.²¹²

On the southern flank, the Spanish Society of Public Health and Health Administration (SESPAS) presents a unique, if not unusual type of organisation. Set up in Spain in

²⁰⁶ 109 Secretary of State for Health, England. Committee Report on Public Health. 2012. Pg. 18.

²⁰⁷ 10 Garrido, MV, *et al.* Health Technology Assessment and Health Policy Making in Europe. 2008. Pg. 93.

²⁰⁸ 21 Gerkens S. & Merkur S. HIT Belgium. 2010. Pg. 219.

²⁰⁹ 12 Papanicolas, I, Smith, PC. Health System Performance Comparison. 2013. Pg. 84.

²¹⁰ 102 Lavis, JN. *et al.* Bridging the worlds of research & policy in European health systems. EOHSP.2014. Chapter 8. Pg. 4.

²¹¹ 104 Lavis, JN. *et al.* Bridge Series – Policy Summary 8. Learning from one another. 2013. Pg. 17.

²¹² 141 Lara Montero A. Evidence in public social services. European Social Network. 2015.

1985, it brings together a collective of scientific societies in the realm of public health and advocates for evidence-based public health interventions. Its diverse and large membership provides a breadth and depth of expertise to tackle contentious but important issues at regional and national level in Spain.²¹³ France also created a national agency responsible for accreditation and assessment termed the *Agence nationale d'accréditation et d'évaluation en santé*.²¹⁴

4.8.1.2.3 *Other models*

Across the Atlantic, the Commonwealth Fund has been at the forefront in promoting a culture of performance assessment and has long advocated, albeit unsuccessfully, for a nation-wide HSPA framework in the United States for many years. Nonetheless, it is the author of several important leading publications, including the development of a National Scorecard on U.S. Health System Performance.²¹⁵ The lack of a national HSPA in the United States is syndromic of many other nations based on a federal system. Other notable examples are Italy, Spain, Germany and Australia whilst a singular exception is Belgium. Still, whilst many of Italy's regions have advanced performance mechanisms, key national agencies in Italy such as the *Agenzia Nazionale per i Servizi Sanitari Regionali* (National Agency for Regional Health Services – AGENAS) facilitate data sharing and support performance-related initiatives. However, these national organisations, although many times possessing a legislative and central mandate, rarely impose unitary standards or models across the regions but rather '*define a more consistent regional approach to the performance management of health systems*'.²¹⁶ This is akin to the EU approach of subsidiarity.

4.8.1.2.4 *How these organisations function*

National research organisations work best as autonomous entities although most are publicly funded. Legislation or policies usually guarantee their independence, but this requires a mature socio-political context, which is not always present, even in EU member states. Many of these agencies are mandated by and are accountable to

²¹³ 102 Lavis, JN. *et al.* Bridging the worlds of research & policy in European health systems. EOHSP. 2014. Chapter 9. Pg. 14.

²¹⁴ 73 OECD. Measuring Up. 2002. Pg. 356.

²¹⁵ 12 Papanicolas, I, Smith, PC. Health System Performance Comparison. 2013. Pg.85.

²¹⁶ 84 OECD. OECD Reviews of Health Care Quality-Italy 2014-Raising Standards. 2014.Pg. 35.

legislative bodies (usually national or regional parliaments) and thus are in a better position to maintain their impartiality and objectivity.²¹⁷

The best performing organisations, such as the KCE, have a multidisciplinary and scientific skill mix, drawing from various socio-scientific disciplines and experts. The KCE has a legislative mandate to act as an ‘*interface between health systems information and health policy*’.²¹⁸ Another successful type of organisation is one that is embedded within a civil service structure, such as the Personal Social Services Research Unit in England. Since this is linked to three separate universities, it is viewed as being impartial and has gained the trust of civil servants who usually have direct access to policy makers. In so doing, it has secured funding from the Department of Health’s Policy Research Programme in England and has provided policy advice based on research and evidence for the past four decades.²¹⁹

The best examples of research organisations that have impacted policy decisions at national and international level are those that are not only involved in ‘traditional academic research’ such as many universities, but those research organisations which have made ‘influencing the policy process’ their fundamental mission. Notable examples are the Kings Fund and the Nuffield Trust. Their *modus operandi* is based upon creating an environment of mutual trust between researchers and policy makers.²²⁰

A private organisation involved in performance monitoring and assessment is the Health Consumer Powerhouse, an analytical information provider based in Sweden (Health Power House, 2015). Whilst its focus is mainly on measuring aspects of consumer empowerment and patients’ rights, its methodology and indeed source of funding have been the subject of considerable controversy across many European member states.²²¹

²¹⁷ 60 Tello J., Baez-Camargo C. (Eds). WHO (Europe). Strengthening health system accountability. 2015.

²¹⁸ 158 KCE. Performance of the Belgian Health System Report 2015.

²¹⁹ 39 DOH (England). Healthy Lives, Healthy People - Impact Assessments. 2010.

²²⁰ 102 Lavis, JN. *et al.* Bridging the worlds of research & policy in European health systems. EOHSP. 2014. Chapter 7. Pg. 9.

²²¹ 12 Papanicolas, I, Smith, PC. Health System Performance Comparison. 2013. Pg. 89.

4.8.1.3 Role of international and regional organisations and networks

The work of international organisations in comparative and collaborative performance assessment contributed immensely to our collective understanding of policy development and generating more resilient health systems. A key publication by Smith *et al.* confirms the role of international organisations when they contend that:

*... international organizations play a key role in holding policy-makers to account, by using international data to draw comparisons between similar countries and offering the public and the media the ability to scrutinise them. International comparisons can also prompt countries to develop a national strategy, or framework, to improve performance in a systematic way.*²²²

The OECD is playing an increasingly important and influential role in health care, especially ever since health care became an important economic commodity. OECD has been at the forefront of facilitating cross-country policy learning through the collation, analysis and dissemination of performance data and evidence. This is confirmed in a position paper by OECD itself in 2013 wherein it stated that *‘the OECD can contribute to assuring that national health information infrastructures become better capable of supporting multi-country monitoring and multi-country research.*²²³ Whilst OECD does not promote the use of league tables, it does regularly produce cross country comparative studies with the aim of distilling coherent policies and identifying *‘potential complementarities among reforms, where co-ordinated pursuit of multiple mutually reinforcing reforms may increase the benefits generated by each member state.*²²⁴ OECD’s comparative work is considered pioneering in that, for the first time, it managed to harness and realise the power of comparative health care system performance data in the pursuit of *‘identifying the strengths and weaknesses of each country’s health care system and the policies with the aim to improve its efficiency and effectiveness.*²²⁵

One of the first major collaborations driven by the European Office of WHO was the development of the Health for All indicators at the turn of the millennium. The HFA

²²² 12 Papanicolas, I, Smith, PC. Health System Performance Comparison. 2013. Pg. 8.

²²³ 82 OECD. Strengthening Health Information Infrastructure for Health Care Quality Governance. 2013. Pg. 152.

²²⁴ 77 Making Reform Happen – Lessons from OECD Countries. OECD. 2010. Pg. 34.

²²⁵ 79 OECD. Health Care Systems - Efficiency and Policy Settings. 2010. Pg. 11.

framework has been indispensable at providing analytical and comparative data for policy making and, in many ways, was the precursor for HSPA at an international level. The HFA is now considered one of the three main indicator international databases, together with ECHI and OECD's HCQI framework.²²⁶ A recent important development is the bid to move towards an integrated common indicator dataset, by combining WHO's HFA with the EU's ECHI model and OECD's Quality Care indicator database. This is increasingly becoming more relevant in today's globalised environment, especially since these frameworks provide similar health data on the same countries. This is also important for standardisation, comparability and fostering cooperation at European and international level.²²⁷

The Performance Assessment Tool for Quality Improvement in Hospitals (PATH) is another network to support hospitals in collecting data on their performance and improve quality of care through comparative data analysis,²²⁸ whilst one of the most successful 'investor' collaborations is the European Observatory on Health Systems and Policies (EOHSP). This initiative allowed for the production of a plethora of evidence-based publications and findings, besides policy statements and papers that have directed health policy for many countries. One of its five pillars of its work plan for 2009-2013 was performance assessment and it has contributed to the debate very rigorously over the past few years.²²⁹

4.8.2 Good practice examples

Many researchers have noted and commented on the corollary between the advances made in evidence-based medicine and those achieved in evidence-based management (Heneghan, et al., 2017). Whilst evidence-based medicine is now an integral part of safe and quality clinical practice, the same cannot be said of management, especially in utilising performance assessment data to take the correct management and policy decisions. This is corroborated by Rechel and McKee (2014) who believe that whilst evidence-based policy making has been in place for decades, its implementation was

²²⁶ 61 WHO (Europe). WHO HFA Indicators for the New Health Policy in Europe. 2000. Pg. 1.

²²⁷ 64 WHO (Europe). Second joint meeting of experts on targets and indicators in Health 2020. 2014. Pg. 1.

²²⁸ 67 WHO (Europe). Performance Assessment Tool for Quality Improvement in Hospitals (PATH). 2007.

²²⁹ 4 Working Party on Public Health at Senior Level - Report by sub-group 5: Health investments. 2013. Pg. 12.

still lacking.²³⁰ This is perhaps the reason why the document analysis uncovered many statements attesting to the importance of evidence-based policy-making but few concrete examples of how this concept has actually been implemented. Nonetheless, the purpose of this theme is to provide an overview of good practice examples in the field of HSPA, performance assessment and policy development. It looks at organisations that are considered exemplars in this field and also at notable examples of their work.

4.8.2.1 Case studies of linking evidence with policy change

Tello and Baez-Camargo (2015) have outlined that there are at least 32 countries in the WHO European Region with national repositories or frameworks of data and health system performance information. These contain a wide variety of indicators, from 26 in Austria to more than 1000 in Finland, highlighting the lack of homogeneity in this field.²³¹

One of the best examples of applying evidence into practice whilst having significant public health impact at population level was the strategy adopted by Switzerland to reduce iodine deficiency and hence, goitre through iodisation of salt. Whilst this led to the elimination of goitre, it was also emulated by many other countries to eliminate iodine deficiency in Europe and elsewhere.²³²

A very good example of a ‘research-policy partnership’ originates from Malaysia, where researchers and policy makers in the Department of Road Safety piloted a few road traffic safety initiatives, measuring their success or otherwise as they progressed, allowing allocation of resources and funding in those areas which were deemed lacking.²³³

Another good practice example originates from Mumbai, India, where a few research and advocacy efforts translated into legislative reforms aimed at improving the quality

²³⁰ 125 Rechel, B., McKee M. (Eds). Facets of Public Health in Europe. EOHSP. 2014. Pg. xxii.

²³¹ 60 Tello J., Baez-Camargo C. (Eds). WHO (Europe). Strengthening health system accountability. 2015. Pg. 17.

²³² 11 Mackenbach JP, McKee, M. Successes and Failures of Health Policy in Europe. 2013. Pg 61.

²³³ 92 Don de Savigny & Taghreed Adam (Eds). Systems thinking for health systems strengthening. 2009. Pg. 85.

of care in private health care institutions.²³⁴ Also, the Ontario province in Canada provides one of the prime and first examples of how a HSPA is incorporated into the policy cycle, through a regular budgeting and planning process.²³⁵

Responsibility for health care in Italy is devolved to the regions. The Tuscan Region developed the Performance Evaluation Programme with the aim of measuring health care performance and quality of care through almost 300 indicators spread over six dimensions, resulting in significant improvements in population health and quality of life.²³⁶ This project was later shared with another 13 regions in Italy.

A similar programme is run by Israeli Maccabi Healthcare Services, a HMO, where it introduced an innovative ICT system called Health Value Added to improve care through target setting, monitoring and reporting of 30 indicators in six clinical dimensions, with the aim of improving performance and reducing inequities amongst its population.²³⁷

4.8.2.2 Examples in the use of HSPA when determining policy agenda

The previous section contained a variety of case studies showing a link between research and the generation of evidence and policy making. However, many of the examples cited were not related directly to HSPA but to various other research activities which generate evidence from performance data. Whilst this is commendable and extremely important, it shows that HSPA, in its purest form, is still not widely used as a basis for policy development. For this reason, the analysis also looked for specific examples of how HSAs informed policy. This sub-theme would highlight these examples.

Portugal's HSPA is a prime example on how it was designed to inform Portugal's National Health Plan. Policy questions, which focused on the performance of Portugal's health system in relation to its strategic goals, were drawn up as part of the

²³⁴ 93 Alliance for Health Policy and Systems Research, Geneva. Strengthening health systems. 2004. Pg. 52.

²³⁵ 53 WHO (Europe). Pathways to Health System Performance Assessment. 2012. Pgs. 9, 57.

²³⁶ 84 OECD. OECD Reviews of Health Care Quality-Italy 2014-Raising Standards. 2014. Pg.114.

²³⁷ 132 Rosen, B. *et al.* The Fourth International Jerusalem Conference on Health Policy. 2009. Pg. 145.

initial HSPA process, leading to policy recommendations which were based on the evidence generated through its HSPA.²³⁸ As we have seen, the Dutch have produced four editions of their Health Care Report with the aim of contributing to strategic policy-making. A Dutch Minister for Health viewed this report as ‘*a solid empirical foundation for the policy of the Ministry of Health*’.^{239,240} The Dutch experience is one of the few that has emerged attesting to the concrete link between the HSPA process and policy development. The Italian Minister of Health, in his 2014 report on the performance of the Italian health system, clearly advocated for the development of performance matrices in order to inform policy and strategy,²⁴¹ whilst OECD noted that several Italian regions, such as Calabria, Campania, Molise and Piemonte, have used performance data to inform local policy making.²⁴²

In its performance assessment reviews of several Euro region countries, such as Portugal, Estonia, Georgia and Turkey, WHO states that ‘*HSPA has been used successfully by health authorities to inform policy decisions; align stakeholders and build dialogue towards a common goal; and increase transparency and accountability*’.²⁴³ In Georgia’s HSPA, stewardship was an important dimension in order to measure how well the ‘*government uses evidence and health system performance information in its strategic planning and resource allocation processes*’.²⁴⁴ During WHO’s assessment of Turkey’s performance, the Minister for Health also intimated that measurement and monitoring of performance was mandatory for decision taking and to improve accountability and efficiency.²⁴⁵ This is an important statement, seeing that it is essential to engage politicians in the policy cycle. However, WHO’s enthusiasm is yet to be corroborated at the local level given that there are, as yet, few documented case studies at the local level to substantiate their claims.²⁴⁶

²³⁸ 46 WHO (Europe). Portugal Health System Performance Assessment. 2010. Pg. 14.

²³⁹ 159 Hegger I. *et al.* Enhancing the contribution of research. JHSRP 2016, Vol. 21(1) 29–35. Pg. 1.

²⁴⁰ 154 van den Berg M., *et al.* The Dutch health care performance report. Health Research Policy & Systems 2014. Pg. 3.

²⁴¹ 43 MOH (Italy). Relazione sulla performance for 2014. 2014. Pg. 3.

²⁴² 84 OECD. OECD Reviews of Health Care Quality-Italy 2014-Raising Standards. 2014. Pg. 35.

²⁴³ 53 WHO (Europe). Pathways to Health System Performance Assessment. 2012. Pg. 9.

²⁴⁴ 152 WHO (Europe). Georgia Health System Performance Assessment, 2009. 2010. Pg. 29.

²⁴⁵ 54 WHO (Europe). Turkey Health System Performance Assessment 2011. 2012. Pg. v.

²⁴⁶ 45 WHO (Europe). WHO Evaluation of the National Health Plan of Portugal (2004–2010). 2010. Pg. 29.

4.9 Communication

Communicating the evidence and communicating to the public are important aspects to consider when linking evidence to policy making. This theme explores the importance and relevance of how the evidence derived from performance assessment should be and is communicated to stakeholders, especially the public and policy makers. Given the diverse needs of these two audiences, it is a challenge to communicate the same information in the appropriate manner, in very different ways.

4.9.1 Communicating the evidence

Communicating the evidence and results ensuing from HSPAs is not an easy task. Many researchers report that communicating their results is challenging if it goes beyond the usual route of publications in peer reviewed journals. Several national experts depict a *‘poorly developed capacity for communicating effectively research results to policy makers.’*²⁴⁷

The Bridge Project was aware of the difficulties encountered in communicating the evidence. They term the methods employed as ‘information-packaging mechanisms,’ in use by knowledge-brokering organisations in an attempt to surpass the traditional scientific formats of communication and develop communication avenues that are easier to understand by policy-makers and other stakeholders.²⁴⁸

4.9.1.1 How to communicate

Various methods have been devised for policy makers and other recipients to fully understand the meaning and implications behind HSPA data. These include visual representations of comparative data, warning signals in the form of synoptic tables, colour codes and traffic lights and visual and descriptive maps to show differences in health outcomes across population groups, geographic areas or over time. These are particularly apt in showing the policy timeline, especially to showcase those policies that have worked in contrast with those that have not.²⁴⁹ Policies briefs are an important tool in analysing a policy problem and communicating solutions, such as

²⁴⁷ 125 Rechel, B., McKee M. (Eds). Facets of Public Health in Europe. EOHSP. 2014. Pg. 291.

²⁴⁸ 103 Lavis, JN. *et al.* Bridge Series – Policy Summary 7. Communicating clearly. 2013. Pg. V.

²⁴⁹ 137 Joe Alper (Rapporteur). Metrics That Matter for Population Health Action. Institute of Medicine. 2016. Pg. 39.

the praxis to produce policy briefs by the EOHSP, usually in collaboration with the respective national health authorities.²⁵⁰ Policy makers find that purposefully written policy papers are more affiliated to their needs. However, these reports must be backed by full scientific rigour to ensure ‘*legitimacy to the executive summary.*’ The thoroughness and robustness of the research process must be upheld and demonstrated, if it is to stand the test of reproach and debate, as most controversial policy documents tend to generate.²⁵¹

4.9.1.2 What and to whom to communicate

Performance systems provide a wide description of data for a variety of reasons. Some systems provide information on one aspect of performance, such as waiting times. Others delve into more complex indicators dealing with clinical and experiential aspects of care. These different types of performance data render understanding and disseminating the information a challenging prospect which requires the correct means and channels of communication.²⁵²

Some elements of a HSPA are more relevant to policy makers, others to clinical professional groups, or to patient groups and yet others to the general public. Depending upon the audience, components of the HSPA are communicated in a manner that is pertinent to the audience being targeted.

This is a well-known practice in marketing, termed market segmentation and audience channelling,²⁵³ although communicating to policy makers is particularly demanding since the evidence needs to be pieced together from a diverse array of sources.²⁵⁴

4.9.1.3 Alignment

As discussed previously, there is evidence to indicate that ‘*researchers and policy-makers operate in two different worlds with researchers often not understanding policy maker needs and policy makers often not able to readily find and use many*

²⁵⁰ 103 Lavis, JN. *et al.* Bridge Series – Policy Summary 7. Communicating clearly. 2013. Pg. 16-17.

²⁵¹ 102 Lavis, JN. *et al.* Bridging the worlds of research & policy in European health systems. EOHSP.2014. Chapter 6, Pg. 10.

²⁵² 135 Kumpunen S. *et al.* (WHO). Public reporting in health and long-term care. 2014. Pg. 7, 28.

²⁵³ 158 KCE. Performance of the Belgian Health System Report 2015. 2015. Pg. 60.

²⁵⁴ 103 Lavis, JN. *et al.* Bridge Series – Policy Summary 7. Communicating clearly. 2013. Pg. VII.

*sources of health systems information.*²⁵⁵ Whereas earlier efforts were directed at communicating evidence that had already been produced and that had been on the agenda of academics and researchers, rather than that of policy makers, more recent wisdom advocates more of an ‘alignment’ strategy.

The purpose of generating evidence is driven by the need to inform policy makers and to improve service provision. It should not be driven solely by the research or academia agenda. Hence, unless these two realities converge, the evidence produced by researchers may not be relevant to policy makers and in turn, their requirements would not be met. Lavis *et al.* (2013) continues to explain that alignment is a two-way communication process, where ‘*health system policy-makers, stakeholders and knowledge brokers (including researchers) can learn a great deal from one another by working together.*’²⁵⁶ This is the methodology of choice for leading policy organisations, such as the King’s Fund and the EOHSP.

4.9.2 The media and evidence-based policy

The media plays an influencing role in the policy developmental process and cannot be discounted as a factor that impacts the policy cycle.

4.9.2.1 The role of the media

The media plays a hugely significant role in shaping policy. Its influence could be harnessed to advance the policy agenda. Many research organisations deploy media tools to communicate the findings of their research, such as the Belgian’s KCE, which publishes its research reports and hence propounds a public platform for its activities. Similarly, many HSPA reports, once published, are invariably launched at press conferences which have the dual function of publicising the results of the HSPA process, as well as garnering public and media support for its main messages or recommendations.²⁵⁷ Italy places substantial effort in converting health data generated through its national and regional health information systems into usable information for the public, its professionals and policy makers. The use of interactive maps and

²⁵⁵ 103 Lomas, J. 2007 as cited in 103 - Lavis, JN. *et al.* Bridge Series – Policy Summary 7. Communicating clearly. 2013. Pg. IX.

²⁵⁶ 104 Lavis, JN. *et al.* Bridge Series – Policy Summary 8. Learning from one another. 2013. Pg. V.

²⁵⁷ 116 WHO (Europe). Case Studies on HSPA. 2012. Pg. 53.

dartboards targets the public, whilst more complex information targeting professionals is disseminated through a series of events and regional workshops.²⁵⁸

The media is known to be unpredictable, following their own agenda, especially in dealing with controversial policies or performance data which uncovers information that was previously unknown. Nonetheless, the media has the potential to bring an issue to the fore and this is invariably used by various stakeholders to guide, or rather steer policy in a certain direction. Media outlets that *‘shock can also have a major impact by bringing the scale and nature of an otherwise hidden problem to public attention.’*²⁵⁹ The challenge, of course, lies in sifting the ‘noise’ from the evidence in these circumstances and not allow controversy or sensationalism to usurp the reasoned interpretation provided by scientific evidence.

Gollust, as cited in Bayer & Thompson (2015)²⁶⁰, contends that providing information is not enough for policy change. For the evidence to *‘influence public opinion and policy, communication will need to reflect important societal values that resonate with large audiences.’* In other words, even though there is an abundance of evidence, unless the issue impacts the wider society or is viewed as an important matter by the public, policy makers will not act upon the availability of evidence alone. This is where the media plays a pivotal role, in garnering facets of the available evidence and transmitting this to the public for policy makers to take notice.

4.9.2.2 Public accountability and transparency

The media plays an important role in the policy process, often at the stage of setting the agenda²⁶¹. Modern communication strategies allow citizens and the general public to hold their politicians to account by being able to measure the performance of the health system and determine whether its performance is improving or regressing.²⁶² In this regard, the media often exposes discrepancies in the policy making process or

²⁵⁸ 84 OECD. OECD Reviews of Health Care Quality-Italy 2014-Raising Standards. 2014. Pgs.23, 84.

²⁵⁹ 11 Mackenbach JP, McKee, M. Successes and Failures of Health Policy in Europe. 2013. Pg. 317.

²⁶⁰ 136 Bayer E & Thompson D. (Rapporteurs). Communicating to Advance the Public's Health. IOM. 2015. Pgs. 35, 36.

²⁶¹ 94 Green A., Bennett S. Sound choices-enhancing capacity for evidence-informed health policy. WHO. 2007. Pg. 28.

²⁶² 18 Jakubowski, E. & Saltman, RB. The Changing National Role in Health System Governance. 2013. Pg. 3.

highlights inept policies or policies that have not worked as expected. This sometimes sets them on a collision course with policy makers.

Evidence produced by performance assessment systems allows for the objective, impartial arbitration between media pundits and politicians. However, the media is also capable of translated what is essentially complex performance information to a language that is understandable and digestible to policy makers and by the public.²⁶³

4.10 Further work

The document analysis uncovered gaps in evidence and makes a case for further research. Many authors argue that:

*... health policy and management, although admittedly different from clinical practice in significant ways, are lagging behind clinical practice in addressing the problems of 'overuse, underuse and misuse' of evidence related to management practice and that this has a significant impact on the quality of care and patient outcomes.*²⁶⁴

It is important to address this discrepancy since policy and managerial decisions have as much, if not more, of an impact upon patients and the public in general as do clinical decisions.

Health Systems Research (Europe) clearly outlines what needs to be done to place Europe at the top of the health systems research agenda. In its 2013 policy brief addressed to various European stakeholders it declared that what is needed is:

*... a broader research chain from research lab to real-life implementation ... to use Europe as a natural laboratory for health services and systems research ... to move from centres of excellence to a sector of excellence ... to synchronize national and European research agendas ... to better monitor the societal impact of health services research ... better training in transferring knowledge in order to realise more evidence informed policies ... capacity building in countries with less HSR potential*²⁶⁵

²⁶³ 151 WHO (Europe). Estonia Health System Performance Assessment, 2009. 2010. Pg. 47.

²⁶⁴ 127 Kyratsis Y. *et al.* Making sense of evidence in management decisions. Health Serv Deliv Res 2014. Pg. 1.

²⁶⁵ 130 HSR Europe. Strengthening the European dimension in health services research. 2013. Pg. 1.

4.11 Conclusion

Today, there are many advocates for HSPA. Most view HSPA as an effective means to develop evidence-based policies, improve quality of care and strengthen health system governance. As such, all major international agencies and organisations strongly believe that each member state should develop a HSPA framework to inform policies, improve care as well as increase transparency and accountability.²⁶⁶ The establishment of HSPA as a '*solid tradition in the Member States and at European level*' is an important goal to achieve in the near future.²⁶⁷ This is the ultimate legacy of HSPA.

²⁶⁶ 139 ERRIN 15. Enhancing Value in European Health Systems: The Role of Outcomes Measurement. 2016. Pg. 33.

²⁶⁷ 4 Working Party on Public Health at Senior Level - Report by sub-group 5: Health investments. 2013. Pg. 24.

CHAPTER 5

PHASE II: DEVELOPING A NATIONAL HSPA FRAMEWORK (MALTA)

*“Knowing is not enough; we must apply. Willing is not enough;
we must do.”*

Johann Wolfgang von Goethe

CHAPTER 5

PHASE II: DEVELOPING A NATIONAL HSPA FRAMEWORK (MALTA)

5.1 Background

To meet the many challenges facing the health system in Malta, including an ageing population, the growing burden of non-communicable diseases and environmental changes, the Ministry for Health in Malta initiated the development of a National Health System Strategy (NHSS) for 2014-2020 (Parliamentary Secretariat for Health, Malta, 2014). The strategy is based on a life-course approach and builds on existing thematic policies and plans that have been developed in recent years.

The next stage of the process was to develop a national Health System Performance Assessment (HSPA) Framework. The HSPA was necessary to devise an effective and sustainable monitoring and review system during the implementation of the NHSS. The purpose of developing and implementing a Maltese HSPA was to bring Malta in line with many other European states in creating suitable systems to measure and assess the performance of its health system.

A National Expert Working Group (NEWG) (Appendix 4) was set up to spearhead the development of the HSPA Framework for Malta. Given the author's interest and expertise on the subject, the author was nominated to form part of this group and in so doing, he coordinated and anchored all facets of its work. As part of the author's original contribution on this group, the author carried out his primary research for this phase of the thesis.

This chapter outlines, in detail, the process undertaken for the creation of Malta's first HSPA framework, including the methodology used and the results stemming from this exercise.

5.2 Objectives of Phase II

The objectives of this phase of the research study were threefold:

1. To develop a national health system performance assessment framework for Malta.
2. To develop a set of key national performance indicators for the Maltese health system.
3. To produce and present the results of Malta's first performance assessment of its health system.

As explained before, the direct and original contribution of the author in this research project is recorded in this chapter as part of a wider exercise carried out by the Ministry for Health towards the development of Malta's first ever HSPA Framework. Hence, it was important to also outline the objectives for the drafting of the HSPA Framework for Malta, since this Government report emanated directly from the research findings for the development of this thesis and for which the author was the main contributor and editor of this report.

The Government of Malta resolved that the main aim for Malta's first HSPA was for it to serve as an adjuvant to Malta's NHSS in terms of monitoring the implementation of this strategy and the attainment of the targets outlined in the NHSS. The HSPA should serve as a tool to enhance and consolidate transparency and accountability in the decision-making process and ensure timely and effective delivery of care to Malta's population. Moreover, the development of a HSPA formed part of the monitoring framework for Malta's bilateral meetings with the European Commission on the Partnership Agreement 2014-2020 for the access of structural funds.

5.3 Methodological & developmental process of HSPA Framework

The process and procedures undertaken by the NEWG and, for this thesis, the personal contribution of the author, are documented and reflected upon in the next section. This section will outline in detail the methods used for each step of the process and will also present the results for each stage. The outputs or results of one stage served as the inputs for the next stage, given that an iterative step-wise approach was adopted, until a final report with results was produced.

5.3.1 Methodological approach and study design

The author reflected upon the various methodological approaches that could be used for this type of project. This reflection was primarily informed by the methods used by previous authors in similar projects, as outlined in the literature review.

5.3.1.1 Method approach

In the main, a mixed methods approach was adopted for the development of HSPA frameworks internationally (Tashakkori & Creswell, 2007). This is logical since these types of research projects require a multifaceted approach with multiple inputs and outputs, utilising a myriad of stakeholders as key participants in the research process. The information gleaned from these projects is both qualitative and quantitative in nature and therefore both methods were required to solicit the required response and obtain the required data and information to develop a meaningful and robust HSPA framework.

‘Mixed methods’ is not simply the *ad hoc* combination of qualitative and quantitative methods. It is the planned mixing of methods at a pre-determined stage of the research and hence, this methodology is incorporated into the research design from the start (Kroll & Neri, 2009). Therefore, mixed methods research collects both qualitative and quantitative data in one study and integrates these data at some stage or at different stages of the research process. In fact, a distinction needs to be made between mixed methods (using both quantitative and qualitative approaches) and multi-method research (using more than one method from the same tradition).

Prior to commencing the data collection process, Creswell (2009, pp. 206-210) puts forward several questions to consider to inform the design of a mixed methods study. These include the sequence of data collection, the relative priority given to the qualitative and quantitative elements of data collection and analysis, the point of integrating both these methods and the elucidation of an overall theoretical perspective which should be used to guide the study.

The author, together with the NEWG, considered the above aspects at design stage and indeed, followed a logical sequence as subscribed by the proponents of this methodology. The first phase of the study, in fact, was qualitative in nature, followed

by a predominantly quantitative phase and ending with a predominantly qualitative input. Since one phase fed into the other, priority setting was not strictly required, however the development of the HSPA model itself took considerable time since this laid the basis for the rest of the results to follow. A flawed framework, at an early stage would have derailed the whole process. Integration of qualitative with quantitative data occurred at each step of the process, where the results of the qualitative study fed into the quantitative part of the study and vice versa.

It is important to highlight, at this juncture, the political nature of this process. This has been amply highlighted in the literature and from the document analysis. Whilst the methodology followed a rigorous scientific approach, the NEWG was in constant contact with the Ministry, which regularly ‘reviewed’ progress and also, towards the end, ‘suggested’ changes to the indicator set to better reflect the political realities at the time. Whilst these changes were minimal, they are discussed later in this chapter.

5.3.1.2 Study design and data analysis

The next decision that needed to be taken was to choose the most appropriate study design and data analysis. The mixed method approach can incorporate a number of study designs. A few of these were considered and discussed for the purpose of this research.

The separate or ‘parallel’ Mixed Methods Analysis was first considered. This is where qualitative and quantitative data sets are analysed separately and conclusions, or ‘meta-inferences’ are made that incorporate both data sets. This was discarded since data sets were produced in synch and were inter-related with one another.

The author then considered whether the ‘convergent’ mixed method design would be appropriate where the results from one tradition (quantitative or qualitative) explains or confirms the results from the other tradition. However, this was not the case for this project and confirmation of the results (in the form of triangulation) was not part of the research design and hence was not required. Another type of analysis that was discussed was the Meta Matrix (or Joint Display) analysis. Again, this process did not match the project requirements and was also rejected.

The method design that best fitted with the aspirations of this project was the Mixed Method Multiphase (or Multistage) Design. The rationale for subscribing to this design was that it was ‘developmental’ in nature, where the results of analysis using one method, shapes subsequent methods or steps in the research process. This design combines concurrent and/or sequential data collection over multiple phases of a programme of research or study. It utilises sequential analysis using an Exploratory (not explanatory) Mixed Methods Design (Andrew & Halcomb, 2009, pp. 31-40), as is shown in Figure 5.1. Furthermore, data analysis is carried out sequentially such that the second strand (qualitative or quantitative) emerges and builds on the previous strand (i.e. the second strand is not standalone and depends on and is informed by the first strand). This is defined by Greene as ‘*the importation of mid-stream results from the analysis of one data type into the analysis of a different data type*’ (Greene, 2007, p. 148).

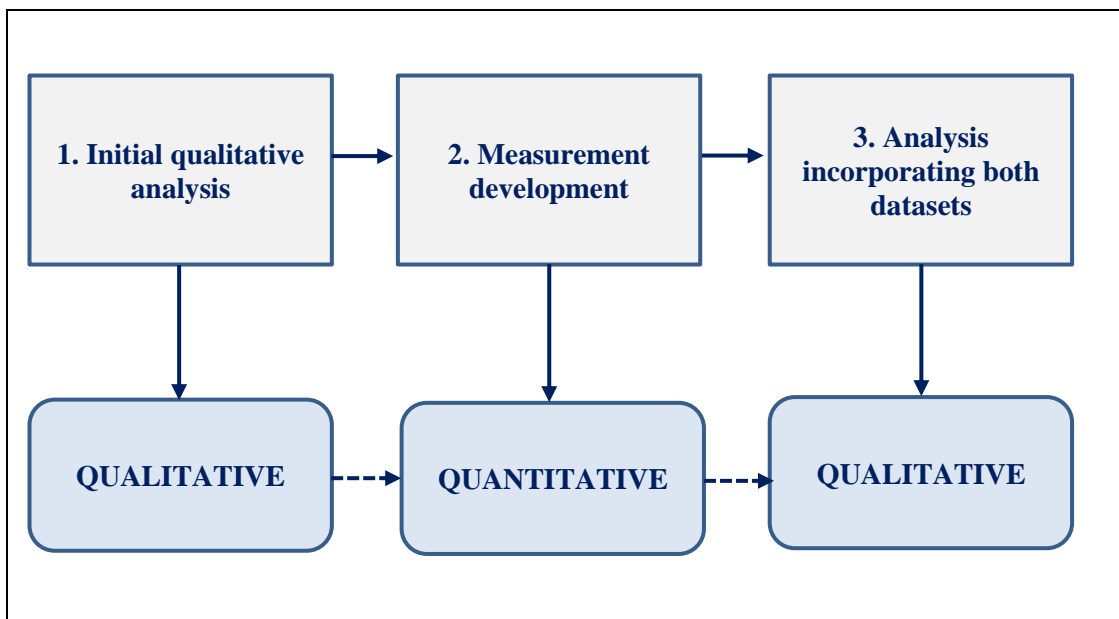


Figure 5.1: Sequential analysis using a multiphase mixed methods design

5.3.1.3 Challenges/benefits of adopting a mixed methods approach

Tashakkori and Teddlie (2010) imparted a few cautionary notes for those undertaking mixed methods research. Whilst the qualitative and quantitative analysis need to be conducted within their own paradigms, the datasets however need to ‘merge’ before the final analysis. The second strand needs to build on the first in a meaningful way, in line with the research question (Fetters, Curry & Creswell (2013).

Also, caution needs to be taken with sampling (size and who is selected) across the different strands to ensure validity and to decide from the start whether to adopt a concurrent and/or sequential sampling methodology at the various phases of the study. Care also needs to be exercised when choosing and interpreting the results that would be followed up by the second and subsequent strands since spurious results at any stage can vitiate the whole study. These caveats were upheld as much as possible.

The main advantage of this study approach is that it provides researchers with the opportunity to creatively rethink the research design and think outside the box. In fact, although the approach of this research project is based upon a mixed method development design, some creative steps were needed to circumvent the difficulties and impracticalities of carrying out this type of project. This allowed for the potential to generate new insights and levels of analysis, bringing together researchers from different backgrounds and different specialisms, allowing them to think together on a given research problem (Bryman, 2008).

5.4 Overview of steps

The methodology selected for this process consisted of several iterative and successive steps over a span of 12 months, starting in December 2013. The methodology outlined above was also approved by the Ministry Management Board of the Ministry for Health in early December 2013 and was discussed and endorsed during the PhD upgrade panel session for the author on 14th May 2014. The ‘traditions’ used (qualitative or quantitative) at each step are outlined in italics. The final step was the production of Malta’s first health system performance assessment report.

The process consisted of the following steps as shown in Box 5.1:

Box 5.1: Methodological process for development of Malta's HSPA

1. Setting up the National Expert Working Group (NEWG).
2. Analysing current international health system performance frameworks (literature review) and testing them for their appropriateness in the Maltese health care setting – Qualitative.
 - 2a. Examination of performance frameworks from OECD, WHO, ECHI, Commonwealth Fund (USA), Canada, Australia, various EU member states.
 - 2b. Comparative analysis of domains/dimensions and indicators contained in each framework.
3. Developing a draft framework for Malta (Roberts, et al., 2008) that would clearly distinguish drivers (e.g. funding mechanisms), intermediate goals (e.g. quality of services) and goals of the health system (e.g. health outcomes) – Qualitative.
4. Extracting, filtering and mapping of indicators to the draft framework - qualitative with element of quantitative.
 - 4a. Extracting of indicators from national vertical strategies.
 - 4b. Filtering and cleaning of initial list of indicators to produce candidate indicators.
5. Short-listing of indicators - quantitative with element of qualitative.
6. Identification of gaps in the list of indicators and mapping of areas where no data is available - quantitative with element of qualitative.
7. Review and finalisation of framework model after identification and mapping of final list of indicators - qualitative with element of quantitative.
8. Data collection and analysis - production of first iteration of results.
 - 8a. Giving a weight to each indicator using two reviewers for each indicator working independently – qualitative.
 - 8b. Assigning owner and data collection and analysis of HSPA list of indicators, with display of results for each indicator – quantitative.
 - 8c. Scoring each indicator in terms of time trend and comparison with international benchmarks – quantitative with element of qualitative.
 - 8d. Scoring of each dimension – quantitative.
9. Production of results.

5.5 Results

The methods and ensuing results are presented contemporaneously over the rest of the chapter.

5.5.1 Step 1: Setting up of the National Expert Working Group

A National Expert Working Group (NEWG) was set up to oversee the development of the HSPA Framework. This group was chaired by the then a/Chief Medical Officer and consisted of national health policy experts and public health consultants, numbering eight in all, including the Chair, senior management, public and health policy expertise, European policy expertise, expertise in epidemiology and statistics as well as administrative and ICT support. A list of the members is provided in Appendix 4. The author formed part of this group and carried out most of the scientific and technical work and research on behalf of the NEWG. This served as the author's original research contribution for this thesis.

Whilst the methodology and results described in this chapter pertain to the whole HSPA developmental process, in practice, this methodology and the ensuing results were devised, developed, guided and written up by the author, again as part of his membership on the NEWG. The NEWG served as a scientific and technical forum to discuss, debate, reach consensus and verify or scrutinise the process. This was essential, since such a methodological process cannot and indeed, should not be carried out by a sole researcher working on his or her own. As we have seen from the literature review and document analysis, this was the case for the development of HSAs in most jurisdictions (Perić, Hofmarcher-Holzhacker & Simon (2017).

The first task was to establish the methodology to be adopted (as described above), including the sequence and content of the work processes required throughout this task. A timeline with key intervention points was established, spanning around 6 to 8 months, from December 2013 to September 2014. Areas of action were agreed amongst members of the group and the wider network of collaborators was also agreed upon. The next step was defining the terms of reference of the NEWG, including the objectives, procedures to be followed and deliverables at the end of this task. The objectives and deliverables are outlined hereunder.

The main objectives of the NEWG were:

1. To develop a set of national indicators for the Maltese Health Systems Strategy.
2. To develop a national Health Performance Assessment Framework.
3. To draft Malta's first HSPA report.

Furthermore, this process was also expected to instigate and sustain a process of policy dialogue regarding performance assessment of the health system as a whole and in specific areas of the health system. This formed part of the policy cycle that was to be developed as part of the implementation of the NHSS.

To ensure external scrutiny by an experienced third party, the Ministry for Health commissioned a WHO expert to assist the NEWG in the development of the framework and to act as an external assessor of the process and its deliverables. This expert was invited to attend the first meetings of the NEWG in mid-December 2013.

5.5.2 Step 2: Analysing current international HSPA frameworks and testing them for the Maltese health care setting.

The first task of the OWG was to review the experience of other countries in devising HSPA frameworks and ascertain whether any of these are appropriate for Malta's needs and requirements.

5.5.2.1 Step 2a: Examination of international HSPA frameworks

The first task that was carried out was to identify and examine the various performance assessment frameworks in place internationally, especially the more established ones and those replicated by several different countries.

The purpose of this task was to review the frameworks that were already in place with a view of determining which framework or aspects of particular frameworks would be applicable to the Maltese context. This then informed the next stage, where a draft framework for Malta was developed.

The author's role at this stage consisted of carrying out a literature review and document analysis as detailed in Chapters 2 and 4 and providing the NEWG with the relevant findings. Each framework was scrutinised for congruence to the local context, for its conceptual outline and for its content, in particular its domains or dimensions. After an extensive review of the literature, the author, together with the NEWG, considered several frameworks that may be pertinent for Malta. These included frameworks pertaining to OECD, WHO, the Commonwealth Fund in the United States, the Ontario model of Canada, the framework used in some states in Australia, and those used in some EU member states including Estonia, Portugal and the Netherlands.

The NEWG also reviewed the European Core Health Indicators project, which although not a framework in itself, was deemed relevant due to its collection of the most commonly used indicators in the European Union. An illustrative depiction of a few of the frameworks examined is provided in Appendix 5.

5.5.2.2 Step 2b: Comparative analysis of dimensions & indicators in each framework

The same literature search identified the domains or dimensions present within each framework described above. The analysis consisted of counting the occurrences of each dimension within each framework, as well as comparing these dimensions across various frameworks, looking for commonalities, divergences and reasons for inclusion.

As explained in the literature review, these dimensions provide the building blocks of each framework, upon which the indicators would be mapped. Those dimensions most relevant to the Maltese health system were discussed in detail and chosen for inclusion into the draft framework for Malta. The indicators contained within each dimension were also noted. Table 5.1 was compiled by the author to show the various domains/dimensions for several frameworks. This was used by the NEWG for this stage of the project.

Table 5.1 Domains/dimensions of international HSPA Frameworks

Dimension	Commonwealth Fund	OECD	WHO	EU (ECHI)	Turkey	Georgia	Austria	Latvia*	Slovenia*	Estonia	Hungary	Portugal	Belgium	Sweden	Armenia	Netherlands	Australia	Scotland	USA	Canada	England
Acceptability																					
Access																					
Appropriateness																					
Care environment																					
Competence																					
Continuity of care																					
Effectiveness																					
Efficiency																					
Equity (including fairness)																					

Source: Created by author from literature and document analysis

Notes: *Under construction.

Table 5.1 Domains/dimensions of international HSPA Frameworks (cont.)

Dimension	England	Canada	USA	Scotland	Australia	Netherlands	Armenia	Sweden	Belgium	Portugal	Hungary	Estonia	Slovenia*	Latvia*	Austria	Georgia	Turkey	EU (ECHI)	WHO	OECD	Commonwealth Fund
Stewardship (includes governance)																					
Responsiveness (includes patient centeredness, patient satisfaction)																					
Safety																					
Quality																					
Sustainability																					
Risk Protection (Financial, social, insurance)																					
Resources (Financial, human, equipment etc.)																					

Source: Created by author from literature and document analysis

Notes: *Under construction.

Table 5.1 Domains/dimensions of international HSPA Frameworks (cont.)

Dimension	Commonwealth Fund	OECD	WHO	EU (ECHI)	Turkey	Georgia	Austria	Latvia*	Slovenia*	Estonia	Hungary	Portugal	Belgium	Sweden	Armenia	Netherlands	Australia	Scotland	USA	Canada	England
Timeliness																					
Utilisation																					
Health status and outcomes																					
Determinants of health and lifestyle factors																					
Management Information System																					
Health promotion and disease prevention																					
Health care services																					
Integration of care																					

Source: Created by author from literature and document analysis

Notes: *Under construction.

5.5.3 Step 3: Developing and testing a draft framework for Malta

This stage involved the development and testing of a draft framework for Malta linked to a theoretical archetypal health system model that would clearly distinguish drivers, intermediate goals, and goals of the health system. A general discussion ensued on the conceptual framework to be adopted for Malta's HSPA, based upon the literature findings previously described. Frameworks were classified into various conceptual themes, including goal-driven frameworks (based on the WHO model), the UK-based balance scorecard system, quality-based frameworks as adopted by OECD and the Netherlands, results-based logic model taken up by Canada and China and the Donabedian Model, adopted by many EU countries, such as Portugal and Estonia. Through an iterative process of consensus discussion, the NEWG agreed that the Donabedian framework would be most suited for Malta, since we already classify many of our activities according to the input-process-output model. However, the NEWG felt that rather than using traditional nomenclature, we would use terms which would be better understood by the general public. Hence, the draft model that was drawn up comprised of three phases – **drivers**, **intermediate goals** and **'final' goals**.

The next phase involved an in-depth discussion on the appropriate dimensions in terms of their applicability to Malta's health care system and local context. The method chosen for this exercise was a modified Delphi technique where members of the NEWG each scrutinised the dimensions described above, and each came forward with their top six (6) dimensions. These were then compared, and, through an iterative process of inclusion and exclusion, the most appropriate dimensions were chosen, with the understanding that these could change following testing and external scrutiny. Through this process, many of the dimensions portrayed in existing international frameworks were individually discussed and included/excluded for Malta. An initial draft list of dimensions was compiled which were then sorted into the three main areas described above, i.e. drivers, intermediate goals and 'final' goals. Furthermore, to ensure full clarity and understanding of the meanings attributed to each dimension, the author compiled a detailed compendium of definitions for each dimension. These definitions are important for comparability and consistency. The full list of dimensions, as drawn up at this stage of the process, together with their definitions, is contained in Appendix 6.

The last part of this stage involved the establishment of a draft Malta HSPA framework incorporating the selected dimensions, as depicted in Figure 5.2.

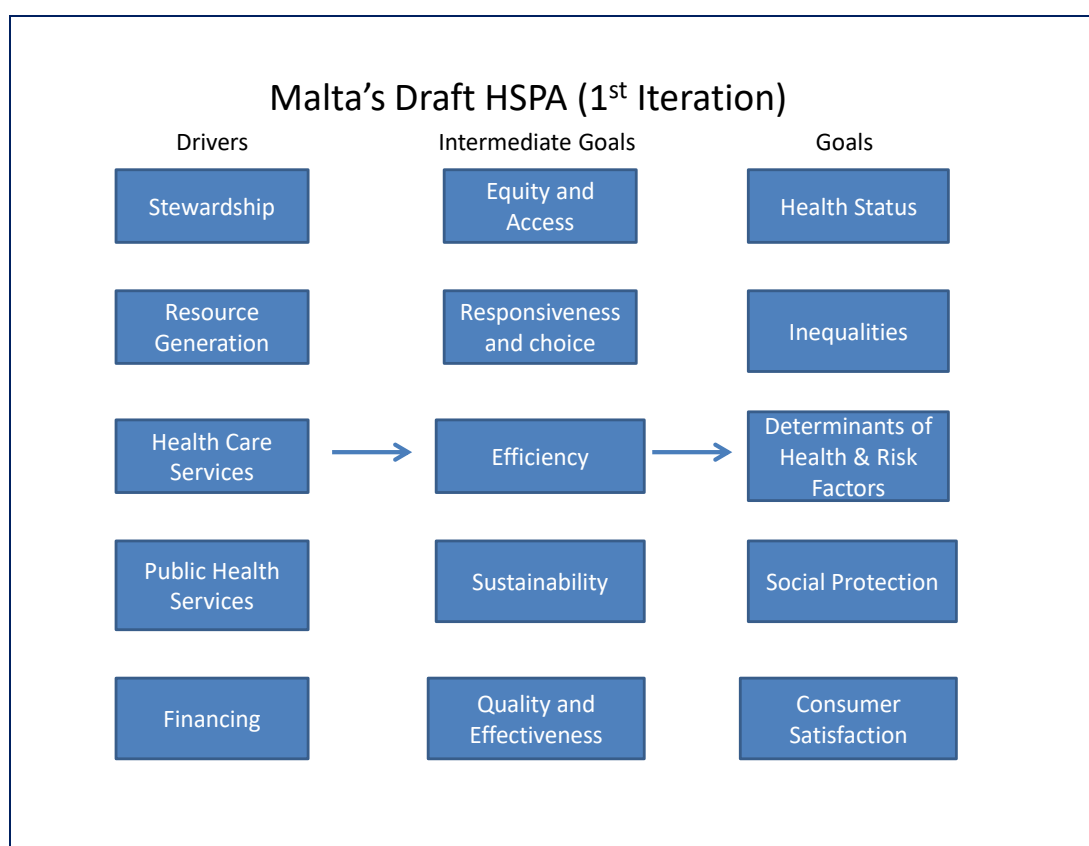


Figure 5.2: First iteration of Malta HSPA Framework (showing initial list of dimensions).

The next stage required the NEWG to test the draft HSPA Framework. This was achieved during a national conference for the launch of Malta's National Health System Strategy held on the 21st February 2014. A bespoke workshop was organised within this conference with the participation of 20 persons, composed, in the main, of senior civil servants, senior managers and senior clinicians. The framework was presented and discussed in detail and the author took note of the suggestions that were made. In general, the framework was understood and accepted as appropriate to Malta's current health system needs and circumstances. Apart from the discussion on the HSPA framework, there was also a dialogue on the type and nature of indicators that could/should be included in the model. Whilst this did not affect or alter the framework itself, the general discussion was useful since it set the scene for the next stage of the process, i.e. the generation of the indicators. The detailed feedback received from this workshop can be viewed in Appendix 7.

5.5.4 Step 4: Extracting, filtering, mapping indicators to draft framework

The most challenging part of the process was to populate the framework with the appropriate indicators. This involved a multi-stepped approach of extracting indicators from Malta's health strategies, cleaning and filtering the initial list and mapping these against the draft framework.

5.5.4.1 Step 4a: Extracting of indicators from national vertical strategies

The next major step required the identification of the performance indicators for the Malta HSPA. The NEWG had two main options to consider, both of which were feasible and methodologically sound. The first option involved drawing from internationally-based indicators and applying these indicators to the local context. The main advantage of this option was the identification of indicators which are tried and tested and which are externally comparable. The main disadvantage is that a few of the chosen indicators may not be collated in Malta and may not necessarily be applicable or relevant to our local needs. The second option was to 'home grow' our own indicators, driven mostly by our local policies and needs. This was also deemed possible due to the availability of local indicators, collected routinely through the implementation of the various national health strategies that were launched in Malta over the last few years. The main advantage of choosing this option was that we would identify indicators that are relevant to the Maltese health system and that these indicators should already be routinely collected. The main disadvantage is one of comparability and benchmarking with external health systems.

Upon the suggestion of the author, with the confirmation of the external advisor, the NEWG opted to go for the latter option, in identifying locally-generated indicators. This task was made more feasible since Malta, had, to date, produced a significant number of national strategies linked to specific public health challenges, such as, amongst others, cancer, non-communicable diseases and obesity. Most of these strategies already had a set of indicators that were being used to monitor the implementation of these plans. Hence, the first task was to delineate all the vertical national health strategies that had been produced to date (mid-2014) or those that were currently being developed (at the time). Seventeen (17) national health strategies or policies were identified (Appendix 8).

An extensive exercise was then carried out where each strategy or policy was scrutinised in detail by at least two members of the NEWG to ‘extract’ the appropriate indicators related to each strategy. In all, 335 indicators were initially extracted from 16 strategies. Since the strategy on communicable diseases was still being developed at the time, the indicators (n=15) linked to this strategy were added later in the day.

This initial list of indicators (n=350) were then mapped onto the first draft Malta HSPA framework, by linking each indicator with a primary dimension or domain. The resultant map gave an indication of those dimensions which were heavily populated as against those with few indicators attached to them. This can be seen in Figure 5.3.

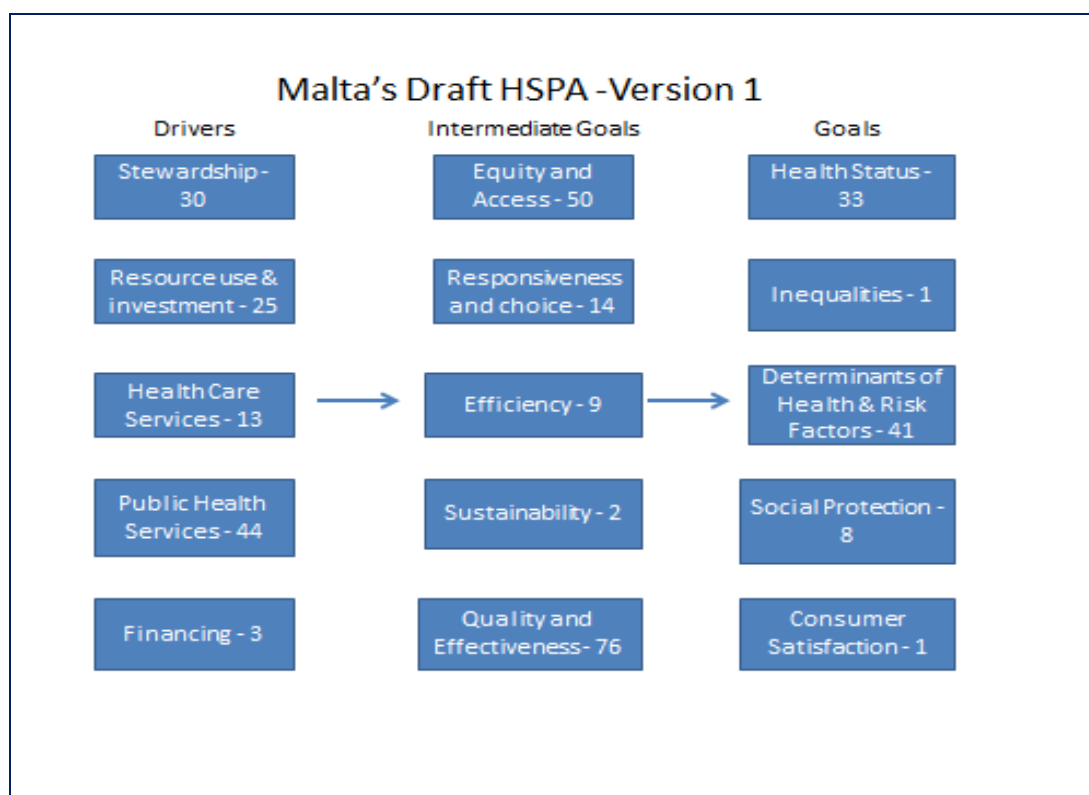


Figure 5.3 Initial mapping of the original 350 indicators to domains

As can be seen from the model above, those dimensions which were matched with most indicators (>30) were Stewardship (n=30), Public Health Services (n=44), Equity and Access (n=50), Quality and Effectiveness (n=76), Health Status (n=33) and Determinants of Health and Risk Factors (n=41). Fiscal related dimensions pertaining to Financing (n=3), Sustainability (n=2), Efficiency (n=9) and Social Protection (n=8) scored low, as did Inequalities (n=1) and Consumer Satisfaction (n=1).

Although not directly pertinent to the ultimate task at hand, this mapping exercise was important when it came to reconfigure the model at a later stage. Also, towards the end of the process, it served as the groundwork when it came to include additional and specific financial, as well as social protection indicators which were not part of the original 350 indicators.

5.5.4.2 Step 4b: Filtering and cleaning of initial list of indicators to produce candidate indicators

Given that some of national strategies were interrelated (for example, the Cancer Plan with the Non-Communicable Disease Strategy), the NEWG noted that a good number of indicators were duplicated or had similar meanings. Hence, the list was ‘cleaned and filtered’ several times for duplication, clarification of definitions and relevance. From an initial total number of 350 indicators, these were filtered down first to 269 indicators (less 81) and then to 250 (less 100) after several iterations of internal discussions, comparisons and consensus agreement. These are known as the ‘candidate’ indicators, details of which are presented in Appendix 9.

5.5.5 Step 5: Short-listing of indicators

Based upon the experience of other countries in developing their HSPA framework and as highlighted in the literature review, the NEWG agreed that the number of performance indicators needed to be reduced to a more manageable number, down from the ‘filtered’ list of 250 (candidate) indicators to around 60-70 indicators. This number was deemed reasonable to cover all the main areas of activity within the Maltese health system, whilst retaining a practical and feasible set of indicators to measure on a regular basis. A methodology subscribed by the RAND Corporation and later assumed by OECD and replicated in many other instances was selected to achieve this reduction (Nolte, 2010). The method consisted of scoring each candidate indicator according to a set of criteria established by OECD and other organisations using a method similar to that established by RAND in their work on classifying patient safety and quality indicators (Farley, et al., 2008). A different weight was assigned to each criterion, depending on its importance, relevance and feasibility for Malta’s specific needs. The criteria and sub-criteria and their definitions are provided in Appendix 10. Based upon these criteria, in agreement with the NEWG, the author created and adapted an algorithm to be followed for this purpose, as illustrated below

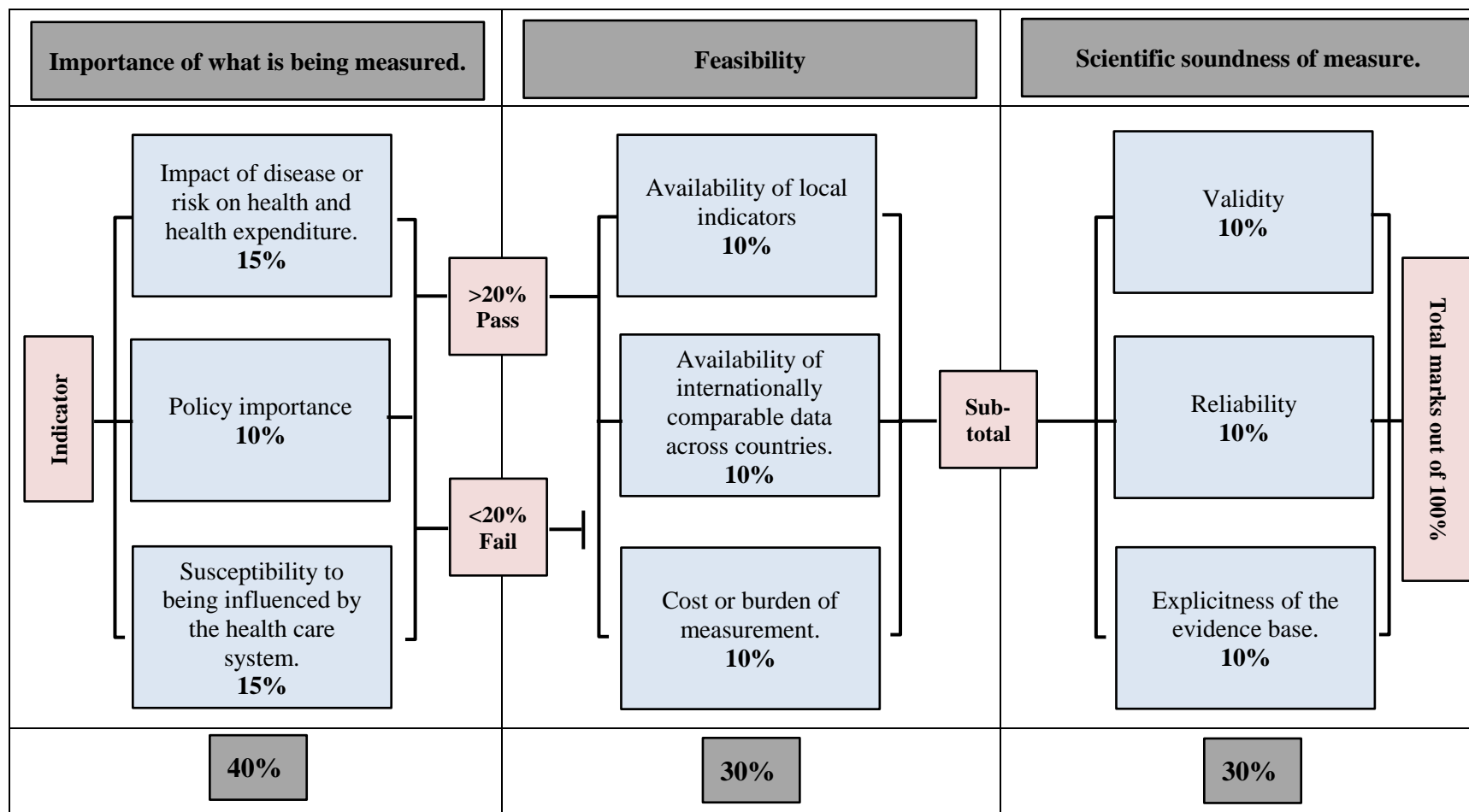


Figure 5.4 Scoring algorithm to produce shortlisted indicators

Source: Adopted by author from Farley *et al.*, (2008).

The first set of criteria was based on ‘importance’, and was given 40% of the total marks, sub-divided into three sub-criteria, namely ‘Impact of disease or risk on health and health expenditure’ (15%), ‘Policy importance’ (10%) and ‘Susceptibility to being influenced by the health care system’ (15%), as indicated in the diagram above. If an indicator did not achieve 20% or more on this first set of criteria, it failed to pass onto the next round of scoring, which consisted of another two sets of criteria, namely:

- **Feasibility (30%)**

- Availability of local indicators – 10%

- Availability of internationally-comparable data across countries – 10%

- Cost or burden of measurement – 10%

- **Scientific soundness (30%)**

- Validity – 10%

- Reliability – 10%

- Explicitness of the evidence base – 10%

The pass mark was an overall 50%. Each indicator was initially scored by two internal reviewers (NEWG members) working independently. Each score from both reviewers was then compared and either averaged out if scores were less than 20% apart or a consensus score was assigned if individual scores were more than 20% apart. Scores were expressed as a % mark. The table below shows the number of indicators resulting from each stage of the process up to this point.

In summary, the first ‘extraction’ of indicators from the 17 national strategies resulted in 350 indicators (Step 4a). These were then filtered, cleaned and reviewed for relevance and duplication, reducing the number first to 269 and then to 250 indicators (Step 4b). The 250 ‘candidate’ indicators were then subjected to the scoring process as described above and the results (Step 5) are shown in Table 5.2. Of the 250 indicators, 82 failed to pass the initial 20% mark linked to the first set of criteria. Another 36 failed to obtain the overall pass mark of 50%. 52 indicators obtained between 50-59%, 41 indicators obtained between 60-69% and 39 indicators obtained more than 70%. The full list of candidate indicators and their marks are provided in Appendix 9 (Internal scoring of candidate indicators, n = 250).

Table 5.2: Extraction, filtering and internal scoring of indicators

	Step 4a Extraction of indicators	Step 4b Filtering, cleaning & reviewing for relevance & duplication		Step 5 Internal Scoring using modified OECD algorithm					
National Strategy				<20%	20 to 50%	50 to 59%	60 to 69%	>70%	Total
Primary Care	25	13	12	2	2	2	2	4	12
Accessibility & Efficiency	19	18	16	1	3	4	5	3	16
National Cancer Plan	15	14	12	4		1	2	5	12
Child Poverty	20	19	18	7	1	5	3	2	18
National Dementia Strategy	26	9	8	2	3	3			8
National Diabetes Strategy	45	42	42	6	12	16	6	2	42
Eating Disorders	13	3	3	2	1				3
National Environmental Health Action Plan	9	6	6	4	1		1		6
Health Vision 2000	17	13	10		2		3	5	10
Mental Health	20	18	18	6	1	5	3	3	18
National Non- Communicable Disease Strategy	36	33	33	14	6	8	4	1	33
Health Weight for Life Strategy (Obesity)	13	4	3	1		1	1		3
Occupational Health and Safety	21	15	15	11		1	2	1	15
Perinatal Indices	24	21	21	9			2	10	21
Sexual Health Strategy	16	11	10	7	1	1	1		10
TB Plan	16	15	8	5		1	1	1	8
Communicable Disease Strategy	15	15	15	1	3	4	5	2	15
Grand Totals	350	269	250	82	36	52	41	39	250

The next stage required external validation of those indicators which passed. Following a high-level sensitivity analysis, the NEWG decided to take the 60% mark as a cut off point for external scoring and validation. This resulted in 80 (41+39) indicators obtaining 60% or more of the marks. These were subjected to further external scoring and scrutiny. Three separate and independent professional groupings external to the NEWG were asked to score the shortlisted indicators.

The first group consisted of 10 professionals considered as experts in performance and quality management in Malta. These professionals were asked to score the 80 indicators according to the same detailed set of criteria and algorithm as used by the NEWG. A 100% response rate was obtained from this group. The second group of external reviewers hailed from academia, consisting of academics and researchers from the Faculties of Medicine and Health Sciences at the University of Malta (n=539; response rate of 3.9%).²⁶⁸ The third group comprised senior clinical leaders and managers within the Maltese public health service (n=130; response rate of 68 (52%)).

Both of these latter two groups were asked, through a covering letter/e-mail, to respond to an on-line survey devised by the author. The survey consisted of a shortened version of the previously used criteria containing the same three main (not sub) criteria set out previously. A sample of the survey is shown in Appendix 11. Unlike the % scores for the internal scoring process, these scores were expressed on a Likert scale from 1 to 7.

The NEWG considered whether to involve lay external stakeholders at this point in time, such as patient groups or NGOs. After obtaining the views of the Ministry for Health, it was decided not to engage with lay stakeholders for the scoring and weighting of the individual indicators but to consult with them after the draft results of this process are published. This may not have been the viewpoint of the NEWG, given that a wider representation and ownership of the process was deemed advantageous.

²⁶⁸ Note: NEWG could not verify that all the academics received the on-line survey since this was transmitted through third parties. Hence the response rate may not be accurate and reflect the true situation.

The scores obtained from the three external groups of reviewers were then compiled and analysed, the results of which are also shown in Appendix 9 (External Scoring Results). The mean score that each group obtained for all 80 indicators was calculated and taken as the pass mark for each group separately. Following this, the NEWG carried out its last review and consensus discussion on the final list of indicators, based primarily upon the scores obtained. Those indicators that scored above the mean for all three groups totalled 39. These were analysed in detail again and reviewed for associations and similarities, after which 28 indicators were selected.

A similar process was followed for those indicators which obtained marks greater than the mean in two of the three groups. These initially numbered 13 and were reduced to 5 after further group review and assessment. An exception to this was the indicator pertaining to 'Prevalence of Cerebral Policy,' which although did not exceed the pass mark, the NEWG felt that it was important to include as a measure of quality of perinatal services. At this juncture, 34 indicators (28+5+1) were shortlisted.

5.5.6 Step 6: Identification of gaps in the list of indicators and mapping of areas where no data is available

In the final stage, this final list of 34 indicators was mapped to the framework. The dimensions which were not populated up to this stage were noted. As intimated earlier, the NEWG also had a mandate to insert indicators that are relevant to Malta's European and politico-fiscal priorities at the time. Hence, the NEWG also reviewed other relevant documents and policies that were in place within the European Union, given that Malta's HSPA primarily needed to meet EU requirements to qualify for EU funding and to ensure convergence with EU mandated requirements.

To this end, the indicators advanced by the Directorate-General for Economic and Financial Affairs (DG ECFIN) and the Social Protection Committee (SPC) - Joint Assessment Framework (JAF) of the European Commission were considered in detail and another 10 financial indicators were added to meet DG ECFIN requirements, whilst another 10 JAF indicators were also incorporated to provide a socio-economic context to the Maltese HSPA (the fact that these numbers match is coincidental).

The NEWG also added an additional indicator to populate the dimension of efficiency since there weren't enough indicators to assess this dimension suitably. This was Indicator No. 60, measuring the 'rate of hip surgery fracture initiated within two calendar days after admission.' This indicator was original in the list of candidate indicators but only obtained 51% of the marks when scored internally by the NEWG and hence, was not considered further at that point.

Finally, two indicators linked to health information and/or e-health were also added, since these did not feature at any stage of the process. These were Indicator No. 61 – 'Proportion of population that accesses own health data on-line' and Indicator No. 62 – 'Rate per capita of prescriptions transaction on-line'. These latest additions were not on the original list of indicators that were extracted from the vertical strategies at the start of this process.

Hence, the total number of indicators reached was $34+10+10+3=\underline{57}$. An algorithm showing the extraction, filtering, scoring and selection of these 57 indicators is shown in Figure 5.5.

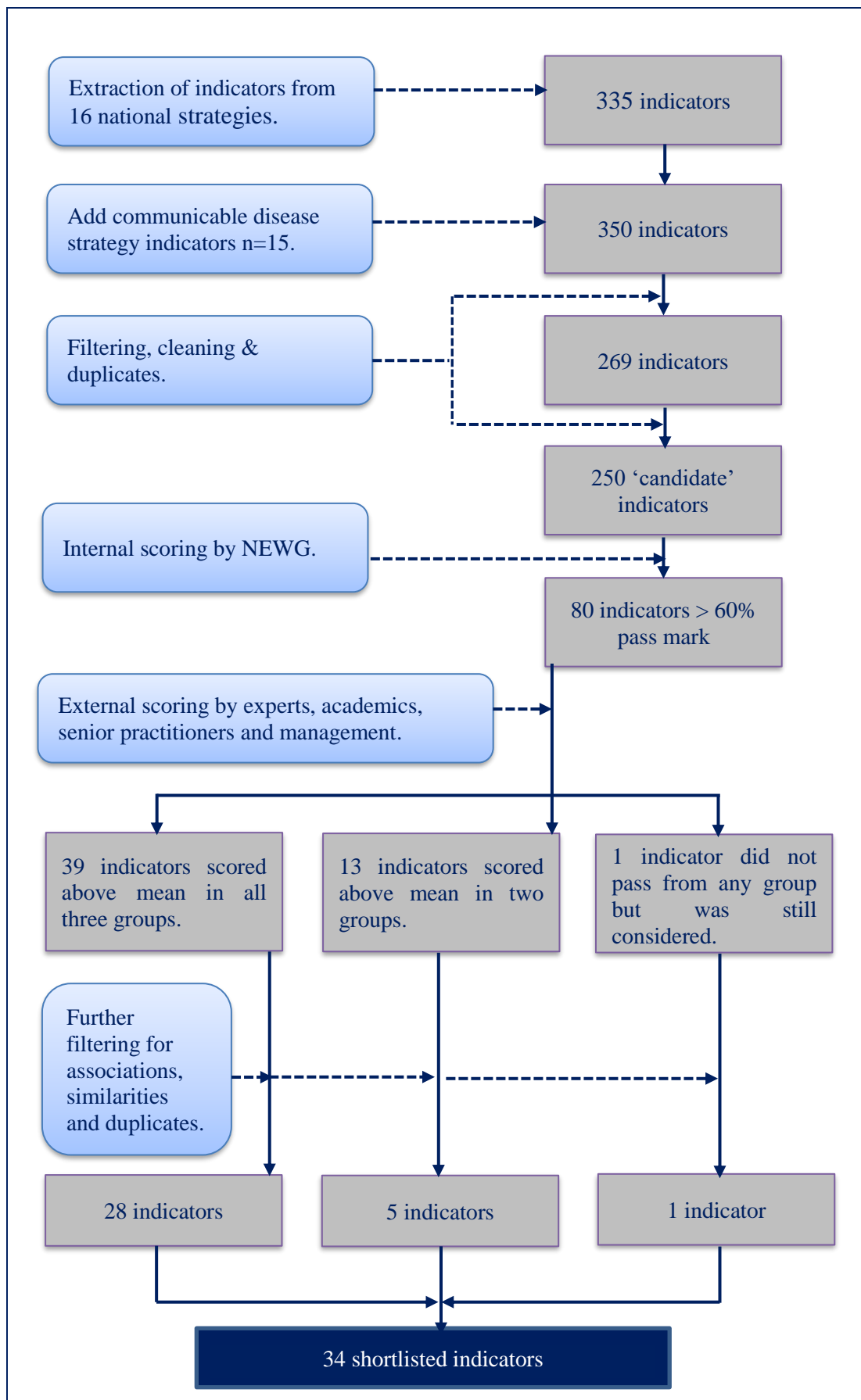


Figure 5.5: Algorithm to extract, filter, score and select shortlist of indicators

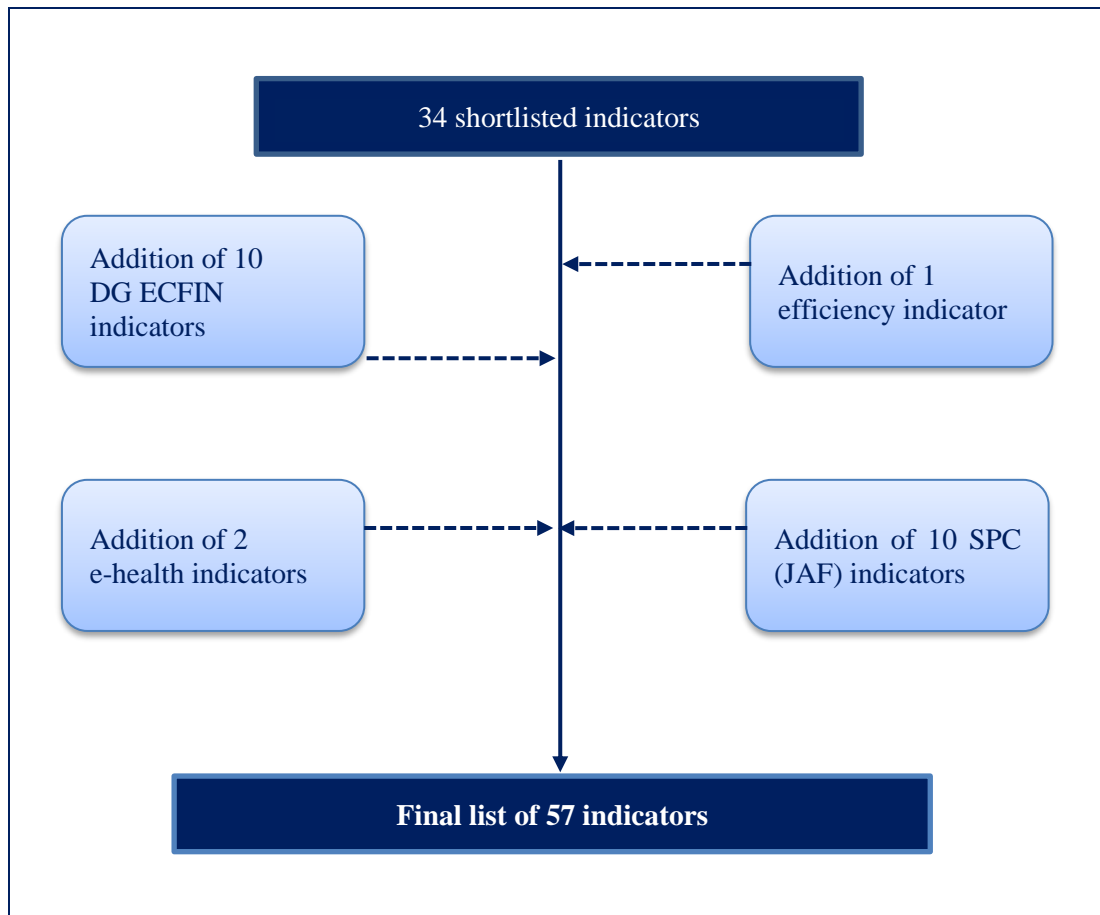


Figure 5.5 Algorithm to extract, filter, score and select final list of indicators (cont.)

5.5.7 Step 7: Review and testing of HSPA framework model after identification and mapping of final list of indicators

Through an iterative process of allocation, review and discussion, the initial HSPA framework was modified to include those dimensions which were relevant for Malta and was populated with the final list of 57 indicators.

The result of this process is shown below in Figure 5.6.

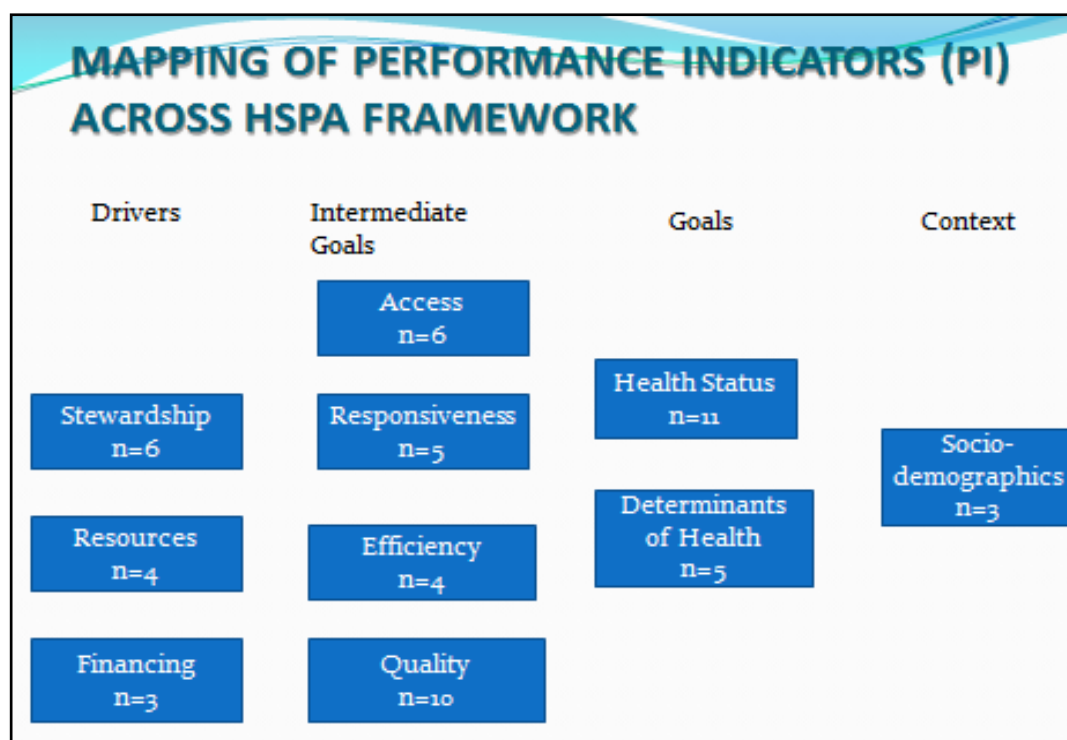


Figure 5.6: Mapping of final list of indicators onto revised HSPA Framework

As explained earlier in this chapter, Malta's HSPA was closely associated with Malta's NHSS. A further exercise was carried out where the HSPA dimensions were mapped alongside the three strategic objectives of the NHSS. This was important to ensure congruence and consistency between the NHSS and the HSPA. The results of this exercise are shown in Table 5.3. This mapping was carried out by the NEWG through internal discussion and consensus building.

Table 5.3 Linking the HSPA dimensions with strategic objectives of NHSS

HSPA DIMENSIONS	NHSS OBJECTIVES
HSPA DRIVERS	NHSS
STEWARDSHIP	NHSS OBJECTIVE 4 generally refers to sustainable policies, governance, whole-of government/society approaches. GOVERNANCE
RESOURCES	
FINANCING	

Table 5.3 Linking the HSPA dimensions with strategic objectives of NHSS (cont.)

HSPA INTERMEDIATE GOALS	NHSS
ACCESS	NHSS OBJECTIVE 2 generally refers to: <i>Access, availability, timeliness and efficiency</i> NHSS OBJECTIVE 3 generally refers to: <i>Quality</i> SERVICES
RESPONSIVENESS	
EFFICIENCY	
QUALITY	

HSPA GOALS	HSPA CONTEXT	NHSS
HEALTH STATUS	SOCIO-DEMOGRAPHICS	NHSS OBJECTIVE 1 Generally refers to: <i>Responding to demographic changes/ health promotion and prevention.</i> EMPOWERMENT
DETERMINANTS OF HEALTH		

The 57 indicators were then mapped again using the above templates, resulting in the following configuration shown in Table 5.4.

Table 5.4 Mapping of final list of indicators to NHSS and HSPA

NHS STRATEGIC DIRECTIONS						
SD1A	SD1B	SD2A	SD3A	SD3B	SD4A	SD4B
ENPOWERMENT		SERVICES			GOVERNANCE	
19		20			18	
MALTA HSPA FRAMEWORK						
HSPA GOALS AND CONTEXT		HSPA INTERMEDIATE GOALS			HSPA DRIVERS	
16+3		25			13	
19		25			13	

Consequent to this analysis and mapping, the HSPA model was amended to incorporate the three main strategic objectives of the NHSS, linked to the dimensions of the HSPA. Again, this last process involved consensus building and agreement on the final iteration for the framework.

The NHSS strategic objectives did not feature at the initial stages of the methodology after a conscious decision was taken not to confuse the fledgling HSPA framework with the then recently launched NHSS. However, both the author and the NEWG were aware that the NHSS model needed to be incorporated into the HSPA framework at some point of the process and that full convergence needed to occur at the end. This process produced the final HSPA model for Malta, as shown in Figure 5.7.

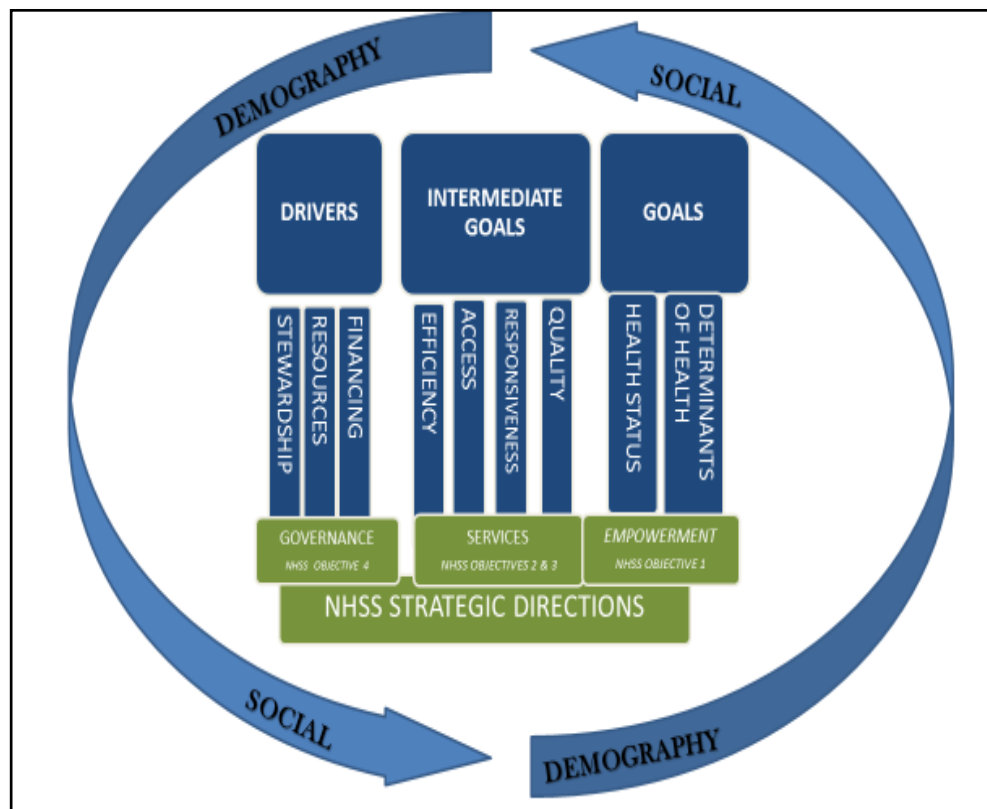


Figure 5.7 Final Malta HSPA Framework

A summary showing the mapping of the final list of indicators to the dimensions is shown below. Some of the 57 ‘main’ indicators were additionally expanded into sub-indicators creating a full list of 69 indicators. For instance, the indicator ‘Standardised Cancer Incidence Rates’ was further divided into incidence rates for colorectal, lung, breast, cervical and prostate cancer as can be seen in Table 5.5.

Table 5.5 Mapping of final list of main and sub-indicators with dimensions

	Dimension	Total Main indicators	Total Main and sub-indicators
Drivers	Stewardship	6	6
	Resources	4	5
	Financing	3	5
Intermediate goals	Efficiency	4	4
	Access	6	7
	Responsiveness	5	5
	Quality	10	12
Goals	Health Status	11	17
	Determinants of health	5	5
Socio-demographic		3	3
Total		57	69

5.5.8 Step 8: Data collection and analysis: Production of first iteration of results

This step consisted of the collection and analysis of data pertaining to the final set of indicators. An outline of the data collection and analysis is being presented here. The full report can be viewed at Grech *et al.* (2015).

5.5.8.1 Step 8a: Data collection and analysis

Each indicator was assigned an ‘owner’ or responsible person, who was usually the senior service manager responsible for the area under which the indicator fell. These persons were asked to collect the requisite data for each indicator, using 2012 as the base year or later years if the data was available. Definitions for each indicator were

developed as part of the data collection and analysis procedure. The owners were also given the opportunity to provide qualitative comments where appropriate or necessary.

A final list of indicators, together with their ‘owners,’ can be seen at Appendix 12²⁶⁹. A definition for each indicator was drawn up and these are shown in Appendix 13. Each indicator was assessed in terms of its performance in two ways; first in comparison with international benchmarks and second how it fared over time. Hence, the data was compared to international benchmarks from data pertaining to the EU 28 average, the EU15 average, WHO Euro Region average and/or OECD data, wherever applicable and available. Time trend analysis was also documented for each indicator. The data of each indicator was consequently collected, collated, scrutinised and converted into graphs, figures and tables as appropriate. Indicators were grouped into their dimensions and the results for each dimension were reviewed and commented upon. Missing or incomplete data was also noted.

Subsequent to the process explained above, a scoring and weighting system was formulated to classify each indicator in terms of performance (score) and importance (weight). With regards to performance, each indicator was scored by four independent assessors for its performance in terms of ‘trend over time’ and ‘international comparison.’ Points were allotted using these criteria from 0 to 2. For each indicator, the sum of each category was then added to derive the overall performance ‘Assessment’ score, ranging from Very Poor (0), Poor (1), Satisfactory (2), Good (3) and Very Good (4). The median score for ‘Trend Over Time,’ ‘International Comparison’ and ‘Assessment’ from the four independent assessors was then calculated for each indicator. The results from all the indicators of each dimension were then examined together.

Table 5.6 provides a representation of the scoring system used for each indicator. It was also decided to introduce a traffic-light colour coded system to aid comprehension, given that the report was to be disseminated widely to a diverse audience. Points are indicated in brackets.

²⁶⁹ Note: The reference numbers of the final list of performance indicators are not sequential since some indicators were removed during the selection process.

Table 5.6 Scoring system for each indicator

Indicator reference number	Indicator	Trend over time	International comparison		Assessment	Score	Weight
					Very Good (4)	4	
		Improving (2)	Malta fares better (2)		Good (3)	3	
		Stable (1)	Malta fares the same (1)		Satisfactory (2)	2	
		Deteriorating (0)	Malta fares worse (0)		Poor (1)	1	
					Very Poor (0)	0	
		More data / research is needed	More data / research is needed		More data / research is needed		

With regards to importance (weight), the Expert Group considered the fact that not all indicators carried the same weight in terms of policy importance and relevance in the local context. Hence, to have a more realistic representation of these indicators in relation to the dimensions they represent, weights were assigned to each indicator independently by 6 local assessors and 2 foreign advisors who weighted each indicator from one (1) to three (3), with 1 being the least important and 3 being the most important. The median score of these eight assessors was then calculated for every indicator.

Once the ‘Assessment’ scores and ‘Weighted’ scores for each indicator were computed and agreed, the overall score for each dimension was extracted using the sum of the scores and weights of each indicator within each dimension. A classification was produced for each dimension. The classification was similar to that for each indicator, ranging from Very Poor to Very Good as shown in Table 5.7. The range of points allocated to each tier was equally distributed from 0 to 4 (4 divided by 5 = 0.8). The range of points allotted across the classification can also be seen in the table below.

Table 5.7 Overall scoring schedule and classification for each dimension

Dimension	Undetermined	Very Poor	Poor	Fair	Good	Very Good
Range	Nil	0 to 0.8	0.81 to 1.6	1.61 to 2.4	2.41 to 3.2	3.21 to 4

5.5.8.2 Step 8b: Presentation of results

Overall assessment of the Maltese health system

The results showing an overall assessment of the Maltese health system are represented in Table 5.8, whilst the detailed scores for each indicator and dimension can be seen in Appendix 14. The table shows the overall assessment for each dimension, as well as the assessment for each indicator. A reference number, which was the same as the number assigned to each indicator, was allocated.

None of the dimensions were classified at the extreme ends, namely either as Very Good or Very Poor. Three dimensions (Efficiency, Resources and Determinants of Health) were classified as Poor, whilst four dimensions (Financing, Quality, Access and Health Status) have been classified as Fair. One dimension (Responsiveness) scored above average.

It was not possible to classify the dimension for Stewardship due to lack of data. Socio-demographic factors, which provide a context within which the Maltese Health System must function and operate, has not been scored for the purposes of this exercise but the task to improve certain aspects of the health system would be more challenging due to an unfavourable environment and the absence of enablers.

Table 5.8: Overall assessment of the Maltese health system for the base year 2012

Dimension	Overall Assessment		Performance Indicators																
Health Status	Fair		46	3	5	27	21	37	17	31a	31b	7a	7b	9	6a	6b	6c	6d	6e
Determinants of Health	Poor		22	33	51	52	53												
Efficiency	Poor		15	40	60	62													
Access	Fair		47	13	14	23a	23b	30	43										
Responsiveness	Good		2	16	32	26	61												
Quality	Fair		18	1	25	12	11	19	50	38	28a	28b	28c	4					
Stewardship	Undetermined		8	34	39	45	44	48											
Resources	Poor		10	20	24	41a	41b												
Financing	Fair		49	35a	35b	36a	36b	36c											
Socio-Demographics	Not Scored		55	57	58														

Source: Reproduced from (Grech, et al., 2015).

5.6 Conclusion

The purpose of this exercise was to portray, in as accurate and scientifically robust manner as possible, the performance of the Maltese health system. The above results have shown that the Maltese health system is performing well in many areas, but there is room for improvement in certain dimensions. The complete results of this exercise were published in the first HSPA report for Malta, where the author was the main editor and drafter of the report. The full results can be seen in the publication ‘Report on the Performance of the Maltese Health System’ (Grech, et al., 2015).

CHAPTER 6

POLICY CYCLE: THE RELATIONSHIP BETWEEN HSPA FRAMEWORKS AND POLICY DEVELOPMENT

“When performance is measured, performance improves. When performance is measured and reported back, the rate of improvement accelerates.”

Thomas S. Monson

CHAPTER 6

POLICY CYCLE: THE RELATIONSHIP BETWEEN HSPA FRAMEWORKS AND POLICY DEVELOPMENT

6.1 Preamble

In his foreword for the volume ‘Performance Measurement for Health System Improvement’ (Smith, et al., 2009a, p. ix), the Deputy Regional Director of WHO states that *‘the provision of relevant, accurate and timely performance information is essential for assuring and improving the performance of health systems.’* This statement shows that whilst performance improvement is very much on the agenda of senior health policy makers, the impact of performance assessment on health policy development seems to play second fiddle. This observation epitomises the focus of this chapter, which aims to explore the impact that HSPA frameworks have upon the development of policy and the shaping of reforms within the health system these frameworks are measuring.

This is known as the policy cycle, wherein HSPA ‘informs’ policy and assists policy makers in setting priorities and in taking key system-wide decisions. These policy developments, in turn, shape the content and structure of performance frameworks and determine which performance indicators are included and excluded in line with changing priorities. Hence, a continuous cycle is created which links performance assessment frameworks with policy development.

This chapter continues to explore this phenomenon through the author’s participation on the HSPA Expert Committee of the European Commission. This experience saw the author visit many capitals in Europe and other locations over a period of three years, actively participating in the formulation of methodologies and strategies on HSPA frameworks.

6.2 Objectives of Phase III

The objectives of this part of the study are:

1. To investigate whether there is a relationship between the introduction and implementation of national health system performance assessment frameworks and national policy making and reform.
2. To evaluate to what extent evidence has a bearing upon the development and adoption of policies and to understand which factors (other than evidence and performance data) impact and inform policy and decision making.

6.3 Method

Following the extraction of results from the documentary analysis, further in-depth research was needed to confirm or refute the findings from the document analysis. Whilst the analysis of documents presented a rich source of information, a deeper understanding of the complexity of the interaction between policy making and performance assessment was required which could not be pursued solely from the review of documents. Furthermore, country-specific evidence was also required to complete the picture, since most policy is generated at country or local level.

The initial plan for this stage of the research project was to organise key informant interviews with experts around Europe involved in HSPA and policy making, possibly followed by a focus group or modified Delphi Technique meeting/s. However, due to the professional role of the researcher and his involvement in the development of Malta's HSPA report, work-related events superseded these research plans and allowed the author to pursue an intense participatory observation study over a three-year period, transporting him across Europe and giving him an opportunity to interact with renowned experts in the various fields of performance assessment, HSPA and public health policy.

This journey began in May 2014 when, together with other experts, the researcher was invited to participate in a peer review meeting of the Belgian HSPA in Brussels. It was a time when HSPA as a concept and methodology for assessing performance, started to gain ground and visibility in Europe, not only within the European Union but also in WHO (Europe) and OECD. This prominence led to a decision by the EU Working Party on Public Health at Senior Level, in its meeting on the 15 July 2014, to create an Expert Group on Health System Performance Assessment (EG).²⁷⁰ The rationale for this development is clearly outlined in the proceedings of this meeting of the Working Party, wherein it states...

...that Member States and the Commission were invited to improve the coordination on health systems performance assessment (HSPA) at EU level by streamlining the debate on the theoretical HSPA framework, identifying useful methodologies and tools to support policy makers in taking decisions, and defining criteria for selecting priority areas for HSPA at EU level and improving the availability and quality of relevant data and information.

This was further spelt out in the terms of reference for the EG.

1. Provide participating Member States with a forum for exchange of experiences on the use of HSPA at national level.
2. Support national policy-makers by identifying tools and methodologies for developing HSPA.
3. Define criteria and procedures for selecting priority areas for HSPA at national and EU level.
4. Intensify EU cooperation with international organisations, in particular the OECD and the WHO.

These objectives, particularly the first two, resonated clearly with the objectives and research questions of this latter stage of the author's research. Due to the author's interest and expertise on HSPA at the time, he was nominated by the Government of Malta as Malta's representative on the Expert Group (EG) (Appendix 15), together

²⁷⁰ Council of the European Union. Outcome of Proceedings. HSPA - Terms of reference for an expert group. Brussels, 9 September 2014.

with representatives from each EU Member State, in addition to OECD, WHO and the European Observatory on Health Policy and Systems. Hence, the membership consisted of national and international experts in the field of HSPA, performance assessment and public health policy.

These developments and the author's membership of the HSPA Expert Group allowed him to pursue alternative avenues of research methodologies, which, at the end, proved much richer and fulfilling.

6.3.1 HSPA Expert Group Meetings

The EG met four times a year, apart from other contacts through teleconferencing or other expert meetings. The first meeting was held on the 10th November 2014 and up to the end of 2016, eight meetings were held in:

- Brussels 10 November, 2014
- Stockholm 6 February, 2015
- Brussels 5 May, 2015
- Berlin 9 October, 2015
- Brussels 4 December, 2015
- Rome 7 April, 2016
- Brussels 23 September, 2016
- Vienna 14 December, 2016

As a full member of the EG, the author actively participated in the meetings and helped shape the agenda and proceedings of the group. He was also actively involved in the production of the first report produced by the EG entitled '*So What? Strategies across Europe to assess quality of care*' (Expert Group on Health Systems Performance Assessment, 2016) and in numerous other presentations and policy papers. The members of the EG were informed and hence, were aware of the author's research interests and his reading for his PhD. They were also aware that the material used and generated during all these meetings could be sourced as information for the purposes of this research. Nonetheless, all proceedings and minutes of these meetings were

already available in the public domain and can be sourced from the European Commission website and other sources.²⁷¹

The main source of information from these meetings were the author's own field notes, official proceedings or minutes of the meetings and the various presentations, documents and papers presented in the course of these meetings or distributed to members of the expert group. Whilst, as mentioned above, most of this documentation is already available in the public domain, the researcher also sought the explicit consent of the various authors of the presentations or documents through formal written e-mails. All but one author (representing a major international health organisation) consented for this material to be used for the purpose of this PhD. The list of respondents authoring use of this material can be seen in Appendix 16.

The full list of documentation derived from the author's participation in the EG can be found in Section C of the Bibliography and consists of field notes, meeting minutes, meeting presentations, policy papers, proceedings of official national and regional bodies, survey results, articles and other publications (n = 115). As was the case for the document analysis, these documents are referred to as footnotes in the subsequent sections. Similarly, as for the document analysis, all this material was documented onto a document analysis worksheet, coded, numbered and inserted into the NVIVO¹¹ database for analysis.

6.3.2 Peer review meetings

Besides the EG meetings, as part of its role to facilitate the '*experiences on how to present results from Health Systems Performance Assessment*',²⁷² members of the EG were also invited to attend and actively participate in national peer review meetings. The first one was hosted by the Belgian authorities over two days on 19th and 20th May, 2014.

The Italian and Slovenian Health Ministries also held similar meetings in Rome and Ljubljana on 8th April 2016 and over two days on 28th and 29th September, 2016

²⁷¹ https://ec.europa.eu/health/systems_performance_assessment/policy/expert_group_en. Accessed 16/12/17.

²⁷² 161 DG sante - Minutes – 1st meeting of EG on HSPA, 10 November 2014. Brussels; pg. 1.

respectively. The author was invited to participate in these meetings. Documentation derived from the peer review meetings was also used as material for this phase of the research. The documents utilised during the peer review meetings can also be found in Section C of the Bibliography.

6.3.3 Policy focus groups

Also, as part of the methodology adopted by the EG, two policy focus groups were also organised. The use of focus groups was considered suitable for the elucidation of qualitative information which would otherwise be difficult to observe or deals with information that is sensitive. Focus groups are also ideal in determining perspectives and exploring experiences from experts in a short time span and to provide a better understanding of the complexities involved in using international health systems performance indicator comparisons to inform policy making. Country-specific information was also derived.²⁷³

The first focus group centred on the policy implications of the performance assessment and measurement of quality of care and the second focus group dealt with the performance assessment of integrated care. These two themes were initially chosen by the EG as proxies or priority areas for comparisons among EU countries and for the elucidation of methods and tools for performance assessment. The first focus group was held in Brussels on 3rd November 2015 and the second also in Brussels on 22nd September, 2016. Participation in these focus groups was by invitation to EU Member states and experts from the EG, CION, WHO and OECD. 25 persons participated in the first focus group, originating from 13 countries (DK, EE, EL, ES, FI, FR, HR, IT, LU, MT, PT, SE, NO), WHO, OECD, and CION. 25 experts participated in the second focus group, stemming from 19 countries (BE, CZ, EL, ES, FI, FR, HR, HU, IE, IT, LV, MT, NO, NL, RO, SE, SI, SK, UK), WHO, OECD and CION.

Chatham House rules were adopted for the proceedings of both focus groups (Chatham House. The Royal Institute of International Affairs, 2015). Whilst this may seem to

²⁷³ 224 EOHSP. Policy focus group on cardiovascular diseases and diabetes. Policy Focus Group. April 2015.

diminish the richness of the proceedings, this was necessary to ensure anonymity and allow participants to express themselves freely without encumbrance. This was considered essential given that the participants relayed sensitive information and knowledge on their countries' and governments' experiences. The European Observatory on Health Systems and Policy facilitated both gatherings. Together with the Observatory experts, the author co-facilitated the first meeting, whilst acting as rapporteur for the second focus group.

Although the author took audio recordings during both meetings, due to Chatham House rules, these recordings were not transcribed *verbatim*. This was also not felt necessary since detailed notes were taken during the meetings, together with reports on the outcome of each focus group. Furthermore, background reports were produced for both focus groups, whilst the integrated care meeting was preceded by a survey to member states. These results were also made available for the focus group for further analysis. Nonetheless, the recordings did serve as a reference to obtain further clarity on an issue which was not clear or to extract specific details on a subject that was discussed during these sessions. The documentation related to the focus groups was also used for the author's analysis and can be found in Section C of the Bibliography.

6.3.4 Ethical considerations

Due to the nature of the interaction between researcher and participant, participatory action research presents particular ethical challenges. The lack of 'distance' creates a unique situation which needs to be continuously appraised. Moreover, the continuous dialogue within the participatory milieu mandates careful consideration about how the data is collected, documented, assigned, coded and interpreted. This was dealt with in two ways. For material and data referring to an event, case study, experience or policy development, the researcher asked the explicit permission of the author for the use of that information. This was required mainly for textual material such as presentations, slides, policy papers, articles and other official or informal documents. Communication in this regard was invariably dealt with through e-mail correspondence. Appendix 16 provides a list of the e-mails sent and received with a positive reply from participants and experts of the HSPA Expert Group and other authors. These emails have been retained.

For more sensitive data, anonymity was the chosen technique, where it was ascertained that this data or any results derived thereof could not be assigned to a particular author or organisation. However, when citing country or regional experiences, the country or region involved was cited for correctness' sake. These considerations were important since participatory research is always in danger of being used by very different parties for purposes that contradict its original intentions (Dentith, Measor & O'Mailey, (2012), where the media or other interested parties could use the information or results generated to cause sensation or for other vested interests. Whilst the author has little to no control over this, the aim of the measures taken above was to safeguard the participants' identity and/or their disclosures throughout this stage of the research project.

Ethical approval for this thesis was obtained from the University of Warwick Biomedical and Scientific Research Ethics Committee on 3rd April 2017. This is presented in Appendix 17.

6.4 Final thematic analysis model

This section describes the results derived from the participatory action stage of the research process. The results from the researcher's active participation in the various meetings, fora and focus groups as part of his membership on the EG will be presented together. As explained in the overview of the Methods section, an inductive thematic analytical approach was also adopted for the analysis of the data generated in this phase, continuing to build on the model developed from the document analysis.

As a start, the same coding sequences were used, expanding upon the main categories, themes and sub-themes derived from the document analysis and continuing to build on the same argumentation. However, new themes were also generated due to a shift in emphasis onto country experiences and the data generated specifically from the two focus groups. Hence, a modified final model was drawn up to reflect these new arguments. The revised final model showing the full thematic analysis of both the document analysis and the participatory research analysis is presented in Figure 6.1.

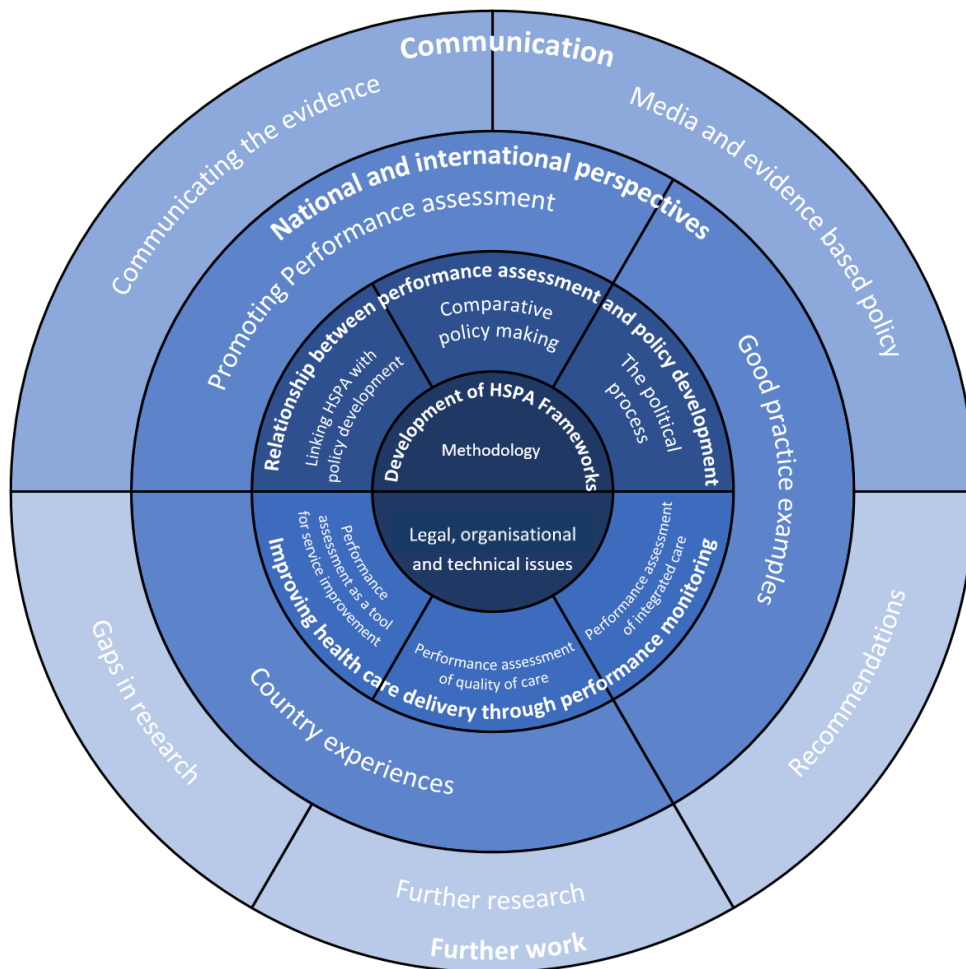


Figure 6.1: Final Thematic Analysis Model

6.5 Phase III: The Policy Cycle – Results and Discussion

Given the qualitative nature of this part of the research, the subsequent sections present both the results and engage into a discussion of the results contemporaneously in the subsequent sections. Whilst the discussion deals with the results of this chapter, a more general discussion covering the whole study follows in the next chapter.

6.6 Development of HSPA Frameworks

Initially, much emphasis was placed upon the methodological aspects of developing and implementing HSPA frameworks since one of the EG's terms of reference was to develop and provide advice on methods that could be adopted and assimilated by member states, especially those countries that had not yet developed their own national HSPA model.

6.6.1 Methods

As with the document analysis, the elaboration and elucidation of the correct methodology was important as a basis on which to construct robust HSPA frameworks.

6.6.1.1 Definitions

Part of the participatory research phase dealt with the performance assessment of Quality of Care (QoC) and Integrated Care (IC), as proxies for the performance assessment of wider health systems. It is, therefore, poignant to explain these terms in the understanding of the EG. The overall aim of IC is to improve service outcomes through initiatives that bring together services, professionals, organisations and sectors leading to better coordination and integration of care.²⁷⁴ Whilst numerous definitions have been ventured for QoC, the EG utilised the definitions adopted by OECD as part of its Health Care Quality Indicators project, which in turn, was based on the concepts developed by the US Institute of Medicine where it defines quality care using the three dimensions of effectiveness, safety, and responsiveness.²⁷⁵

6.6.1.2 Methodology

This section covers the various components of the methods used to ensure the proper development of HSPA.

6.6.1.2.1 The use of composite indicators

Composite indicators create a single score or index from a set of seemingly unrelated performance indicators which can be used to compare (and sometimes rank) the relative performance of hospitals or health systems.²⁷⁶

The peer review meeting in Brussels acknowledged the usefulness of using composite indicators, as a means to reduce the overall number of indicators in a HSPA model. Participants also noted their use in assessing progress over time on complex health issues and to communicate these results more easily.²⁷⁷

²⁷⁴ 216 I. Schmidt. Results from a survey on integrated care in EU Member States. Aug 2016; Pg. 4-5.

²⁷⁵ 217 Expert Group on HSPA. Strategies across Europe to assess quality of care. March 2016.

²⁷⁶ 6c Smith, PC. *et al.* Performance Measurement for Health System 2009.

²⁷⁷ 251 Meeus, P. Host country paper. Peer Review meeting. Brussels. May 2014; pg. 10.

Although the use of composite indicators remains a controversial and challenging issue, several countries and jurisdictions make ample use of them. The French Health Ministry employs composite indicators in their scheme for Financial Incentives for Quality Improvement (IFAQ). Each health care institution is given an ‘IFAQ’ score which is calculated as the weighted sum of each component of composite indicators.²⁷⁸ This was confirmed during the quality focus group where the French participant stated that they try to avoid using single indicators, due to the complex nature of health care,²⁷⁹ and reiterated that France uses ‘*multiple sources to draw conclusions and develop policy*’.²⁸⁰ The quality sub-group also acknowledged that the use of composite indicators is a widely accepted method for comparative performance assessment and in most cases, careful reflection was imbued into the process to ensure a robust methodology. This involved the use of risk-adjustment techniques to account for variations in age, sex and comorbidity. Stratification and subgroup analysis is also carried out.²⁸¹

6.6.1.2.2 Use of routinely collected data for comparative performance assessment

A systematic approach is required to collect and analyse large amounts of data in the form of performance indicators. Routine data collection is one way to achieve this and there are numerous examples of how routinely collected data is used for comparative performance assessment.

The EuroHope project developed an interesting methodology to measure variations in health outcomes through the use of administrative data from Finland, Hungary, Italy, the Netherlands, Norway, Sweden and Scotland, where a common list of indicators was developed for comparison and benchmarking purposes.²⁸² This initiative showed how routinely collected data such as that collected in registers can be used for comparative performance assessment techniques, especially since internationally agreed registers have the added benefit of using standardised coding, such as

²⁷⁸ 180 Félix Faucon. Financial incentives for Quality Improvement. 3rd HSPA Meeting. Brussels. May 2015.

²⁷⁹ 223.5 Grech K. Quality Policy Focus Group Flip Charts notes. Brussels. 3 Nov. 2015.

²⁸⁰ 222 Grech K. Karanikolos M. Nolte E. Quality Policy Focus Group Meeting notes. Brussels. 3 Nov. 2015, pg 4.

²⁸¹ 217 Expert Group on HSPA. Strategies across Europe to assess quality of care. Mar 2016. pg 32.

²⁸² 183 DG Sante - Minutes – 4th meeting of Expert Group on HSPA, 9 October 2015. Berlin; pg. 4.

ICD10.²⁸³ The publication by Cylus, Papanicolas and Smith (2016) showed how registers can be used to measure and improve upon clinical and operational efficiency.

Adoption of this methodology by member states is gaining ground. Germany utilises this approach in their national data-based quality assurance programme, where they are utilising over 3.2 million records from 1,557 hospitals nationwide each year to generate over 400 indicators in thirty clinical areas.²⁸⁴ Austria also routinely uses its Diagnostic Related Groups (DRG) databases, as part of their A-IQI system across the country, using 228 indicators.^{285,286} The Norwegian National Quality Indicator System also uses data from existing registries.²⁸⁷

The EG reiterated the usefulness of data derived from administrative and quality databases, such as national registries, social insurance databases and hospital archives. It was noted that several advantages are associated with this approach, including reduced costs, better comparability, completeness of data and reliability.²⁸⁸ The EG, on the other hand, also observed certain disadvantages, such as outdated data due to the time required for validation of international data, rendering the data ineffectual for decision making.²⁸⁹

6.6.1.2.3 *Selecting the right indicators*

As outlined in the document analysis and in Malta's HSPA, the selection of the correct indicators to populate a HSPA model is a complex and intricate exercise. As a first step, on a technical level, many jurisdictions adopt scientific criteria for selecting the most appropriate indicators, such as Malta's adoption of OECD's criteria.²⁹⁰ The IC focus group discussed the possible criteria for selecting indicators and identified the same desirable attributes of scientific validity, reliability and sensitivity (to change) as key considerations.

²⁸³ 185 Mikko Peltola. EuroHOPE. 4th HSPA Meeting. Oct 2015.

²⁸⁴ 188 Thilo Grüning. Quality improvement through data. 4th HSPA Meeting. Oct 2015.

²⁸⁵ 193 Patrizia Theurer. Austrian HSPA-Initiatives. 6th HSPA Meeting. April 2016.

²⁸⁶ 261 Grech K. Personal meeting notes. 6th HSPA Meeting and Seminar on Integrated Care. Rome. April 2016.

²⁸⁷ 234 The Norwegian National Quality Indicator System. Norwegian Directorate of Health. 2012.

²⁸⁸ 233 The Health Foundation. How does the NHS compare with health systems in other countries. March 2015; pg. 4.

²⁸⁹ 217 Expert Group on HSPA. Strategies across Europe to assess quality of care. Mar 2016; pg. 15.

²⁹⁰ 241 Questionnaire Response – Malta. Peer Review on HSPA, Belgium 2014; pg. 7.

Pringle, Wilson and Grol (2002) produced an exhaustive set of attributes to guide indicator selection, including indicators that are effective, objective, available, contextual, attributable, comparable, repeatable, feasible, acceptable and are policy relevant. On the other hand, the IC focus group also acknowledged the difficulty in matching all indicators to these attributes and argued that the most important aspect is that of choosing indicators which actually measure change, in that they could ascribe a cause and effect event to the actions or decisions for improvement or change.²⁹¹

The EG also had occasion to discuss the most appropriate number of indicators that should populate a HSPA model. As attested by the literature and also the document analysis, some countries opt for a smaller set of indicators for greater manageability. Some models have a set of core indicators and a wider set of auxiliary indicators. Most agree that quality should not be compromised by quantity and that *‘quantity is not necessarily an advantage.’*²⁹²

6.6.1.3 Process in the development of HSPAs & actors involved

One of the first premises brought up in the first HSPA EG meeting was the realisation that HSPA is not only about collecting data but goes beyond. It is a key tool to improve the quality of care, innovate services and address policy issues.²⁹³

6.6.1.3.1 HSPA as an evolving process

The evolution of a HSPA model at national or regional level was well documented in the document analysis. During EG meetings, OECD presented a different perspective, outlining the historical or temporal evolution of performance assessment, starting from its Health Care Quality Indicators project in 2002, to developing bespoke models, amongst others, on primary care prevention, cancer (2007), patient safety indicators (2011) and mental health (2013). This picture shows the almost erratic but developmental nature of HSPA, given that, by OECD’s own omission, the trajectory in developing performance assessments indicators and models was not mapped out initially in 2002.²⁹⁴

²⁹¹ 215 E Nolte. Policy Focus Group on performance assessment of integrated care. Aug, 2016; pg. 2.

²⁹² 217 Expert Group on HSPA. Strategies across Europe to assess quality of care. Mar, 2016. Pg 31.

²⁹³ 161 DG Sante - Minutes – 1st meeting of Expert Group on HSPA, 10 Nov 2014. Brussels; pg. 2.

²⁹⁴ 181 Niek Klazinga. CVD and diabetes – policies for better health and quality of care. 3rd HSPA Meeting. Brussels. May, 2015.

The development of the more recent performance frameworks in England was discussed in the EG. It deliberated on the reasoning behind the usefulness of creating three separate performance frameworks but also the drawbacks of keeping the performance assessment of service provision, public health and social care separate. The common thread between these was promoting excellence and equality through ensuring accountability and transparency in the process.²⁹⁵

As time progressed, the expert group members co-participated in the development of several national HSPAs including that of Austria, where the first building blocks were put in place in 2014.²⁹⁶ This was followed through in the sixth EG and peer review meetings in Rome and Slovenia respectively two years later with the launch of Austria's HSPA.^{297,298} The Belgian peer review meeting discussed progression in the development of the Portuguese HSPA. It was launched in 2010 following a two-year collaborative effort between the WHO Europe and Portugal.²⁹⁹ The peer review meeting in Slovenia also highlighted Slovenia's progress in developing its HSPA and its link with institutional reforms, as part of its National Healthcare Plan for 2016-2025.³⁰⁰ In 2016, they started the process to develop their first HSPA at national level, taking over fifteen years to mature and find acceptance amongst stakeholders.³⁰¹

The development of indicators measuring the performance of integrated care initiatives also showed a phased iterative approach, where the IC focus group acknowledged that new and revised indicators have been developed akin to the progress achieved in understanding and implementing integrated care services. It was further observed that, to date, few countries have yet published a set of indicators measuring the performance of integrated health systems.³⁰² This was confirmed from the results of a survey carried out in preparation of the IC focus group where '*most*

²⁹⁵ 186 Keith Derbyshire. NHS Outcomes Framework. 4th HSPA Meeting. Oct 2015.

²⁹⁶ 192 Florian Bachner. Austrian HSPA Initiatives. 6th HSPA Meeting. April 2016.

²⁹⁷ 254 Kernstock EM. HSPA – Austrian Initiatives. HSPA quality seminar. Ljubljana. Sept. 2016.

²⁹⁸ 261 Grech K. Personal meeting notes. 6th HSPA Meeting and Seminar on Integrated Care. Rome. April 2016.

²⁹⁹ 243 Questionnaire Response – Portugal. Peer Review on HSPA, Belgium 2014; pg. 1.

³⁰⁰ 227 HSPA Expert Group. HSPA seminar discussion paper. Ljubljana, Slovenia. 28-29 Sept. 2016; pg. 2.

³⁰¹ 253 Poldugrovac M. Quality Indicators in Slovenia, Problems and Objectives. HSPA quality seminar. Ljubljana. Sept. 2016.

³⁰² 215 Ellen Nolte. Policy Focus Group on performance assessment of integrated care. Aug 2016; Pg. 3-4.

*countries reported that they do not have, at present, a systematic approach in place that is explicitly designed to assess and evaluate the development of coordination and integration of care.*³⁰³

6.6.1.3.2 Political and clinical ownership

Whilst the document analysis placed an emphasis upon political ownership and the importance of integrating policy making into the HSPA process, the EG also viewed interaction with clinicians as an important aspect of reporting and assimilation of findings. It noted that the reporting of results improved over time as the emphasis on quality has increased, leading to an increase in interest from clinicians, with the consequent increase in trust, greater acceptance, not only in the HSPA process, but more importantly, also in the data generated.³⁰⁴ This collaborative effort was a common phenomenon amongst representatives of the various jurisdictions within the EG, as attested by the Dutch, Belgian, Swedish and other members.

6.6.1.4 HSPA models

Participation in the various fora allowed for a wide and rich discussion on the various HSPA models in play. This sub-theme will build on the evidence generated from the document analysis on the models, dimensions and indicator sets in use.

6.6.1.4.1 Models

The model developed by the Commission on a High-Performance Health Systems (Commonwealth Fund, USA) in 2006 was used in the first EG meeting as a model of good practice to discuss the building blocks of a robust HSPA framework. This was also compared to the OECD and WHO models, which, together with the Commonwealth framework, served as precursor models for the development of many HSPA models at national level. Although the expressions and nomenclature varied, the basic concepts of these models were comparable, as were the dimensions contained within each model.^{305,306} Oddly enough, the EU models have not shared the same fate, perhaps because these were developed much later in the natural history of HSPA,

³⁰³ 216 I. Schmidt. Results from a survey on integrated care in EU Member States. Aug 2016; pg. 8.

³⁰⁴ 166 DG Sante – Minutes_2nd meeting of Expert Group on HSPA, 6 Feb 2015. Stockholm; pg. 4.

³⁰⁵ 164 I. Schmidt. Setting up a work plan. 1st HSPA Meeting. Nov 2014.

³⁰⁶ 165 E. Nolte. HSPA - Goals, tools and state of the art. 1st HSPA Meeting. Nov 2014.

although today the ECHI project is used as a basis by all member states and also by the OECD in its Health at a Glance report.³⁰⁷

One of the first findings by the EG was that although many HSPA models were similar in content, their objectives differed widely. Armenia's and Estonia's HSPA focused upon improving stewardship, accountability, and transparency, whilst the Dutch HSPA's overall purpose was to inform strategic decision-making at Ministry level.³⁰⁸ Belgium also wished to promote transparency and accountability but was also driven by international comparative performance assessment to improve services over time.

England's focus was performance management of its public health care sector. Kyrgyzstan used its HSPA to monitor progress and measure the impact of international sponsored programmes on its health sector. Portugal also viewed its HSPA as a tool for greater accountability but due to its link to Portugal's national health plan, it was also formulated to direct its health policy agenda. The newly developing Slovenian HSPA's main objective is quality driven, for the '*development of quality improvement strategies and action at the national and provider level*'³⁰⁹. Hence, as one can surmise, whilst the basic concept of a HSPA remains constant, the reasons for its development and implementation varies widely from country to country, certainly in line with their respective national priorities.³¹⁰

Towards 2016, due to the focus on integrated care at the time, the EG and focus group explored various integrated care models. One of the main difficulties in developing performance assessment models to measure integrated care is the complex nature of this relatively new phenomenon. WHO had proposed a model to assess integrated care consisting of six domains, including system-level measures of community well-being and population health.³¹¹

³⁰⁷ 174 Gaetan Lafortune. Health at a Glance, Europe 2014. 2nd HSPA Meeting. Feb 2015.

³⁰⁸ 247 Smith PC. Comparison of national approaches to HSPA. Peer Review meeting. Brussels. May 2014.

³⁰⁹ 253 Poldugrovac M. Quality Indicators in Slovenia, Problems and Objectives. HSPA quality seminar. Ljubljana. Sept. 2016; Slide 12.

³¹⁰ 246 Smith PC. Setting the scene - HSPA in an international perspective. Peer Review meeting. Brussels. May 2014.

³¹¹ 215 E. Nolte. Policy Focus Group on performance assessment of integrated care. Aug 2016 Pg. 1, 11.

6.6.1.4.2 Dimensions

A mapping process of dimensions used in various countries and jurisdictions was carried out by the author, as part of his role on Malta's Working Group. This was shown in Table 5.1.

This exercise has shown that health systems adopt those dimensions that are relevant and suited to them, in line with their socio-demographic, cultural, epidemiological and political nuances. However, there are a few dimensions that are steadily represented across most HSPAs. These are consistent with the fundamental facets of most health systems, representing their most basic and common values. These dimensions include access (to universal health care), equity, quality, efficiency, responsiveness (patient centeredness), effectiveness, resource generation and allocation and (financial, social, insurance) risk protection.

6.6.1.5 Conditions for using performance assessment for policy making

EG members relayed their practical experiences in what they felt was required for the successful implementation of HSPA. One of the key success factors is fostering a mind-set of mutual trust between all stakeholders. This is important not only to ensure cooperation but also to gain acceptance by professionals, public officials and researchers.

HSPA is a relatively new discipline, compared to other scientific techniques and so gaining trust and ownership is key to its nascent success. On the other hand, HSPA is not the panacea of performance assessment and so, expectations need to be managed by focusing on the quality imperative, on guidelines, evidence based medicine, equity and improvement of work practices and policy making.³¹²

6.6.2 Legal, organisational and technological issues

This next section discusses the wider non-health aspects that impact HSPA.

³¹² 169 Mona Heurgren. Public Reporting. 2nd HSPA Meeting. Feb. 2015.

6.6.2.1 Information technological tools: For assessing evidence and for performance measurement

The author had occasion to collect information on the various tools and techniques currently in use for performance measurement. These are considered the foundations or building blocks of any performance assessment system, without which HSPA would not be possible. OECD is also of the same opinion, stating that *‘information systems are the bedrock of performance management which enable comparative health system assessment as well as evaluate the impact of policies at both the national and international levels.’*³¹³ Most of these tools are understandably related to information systems and information technology.

6.6.2.1.1 The use of registers

Performance assessment registers or national quality registers, covering many conditions and illnesses, are common place in more advanced health systems. The use of these registers was brought up in several country presentations, such as those pertaining to Sweden, Slovenia and Germany.^{314,315} Due to the comprehensive and standardised nature of these datasets, they have been termed as quality registers in some jurisdictions, since the information contained thereof is used for performance assessment measurement and quality improvement.

The QoC policy focus group discussed the advantages of registers.³¹⁶ It was agreed that they are comprehensive, collecting data for the whole population, without the need for sampling. They make use of unique personal or patient identifiers which allow for the collection of anonymised patient data collection. Moreover, the data is not collected for specific research purposes, so data protection and data restriction issues do not usually apply. Neither is patient consent required. Another major benefit is that registries present an easy and standardised method for data collection, which in turn facilitates international comparative methods. These characteristics give registries an advantage over other research tools and as such, are used extensively for

³¹³ 213 OECD (2015). Cardiovascular Disease and Diabetes: Policies for Better Health and Quality of Care. Paris. 2015, pg. 14.

³¹⁴ 168 Kjell Asplund. Health System Performance Assessment. 2nd HSPA Meeting. Feb 2015.

³¹⁵ 184 Christof Veit. Can we govern Health Care with Quality Data. 4th HSPA Meeting. Oct 2015.

³¹⁶ 223.1-7 Grech K. Quality Policy Focus Group Flip Charts notes. Brussels. 3 Nov. 2015.

assessment and planning purposes.³¹⁷ Many cross-national projects, such as ECHO and OECD's HCQI take advantage of these characteristics by using routinely collected and standardised administrative data from participating countries for international and regional comparative analysis^{318,319}. Many countries, such as Sweden, Austria and Slovenia use nationwide outcome quality registries to contribute to quality assurance and improvement^{320,321}, whilst other countries, such as Finland, uses register-based data to compare with OECD and other international databases³²² and also to link administrative data with specific clinical databases.³²³

6.6.2.1.2 *Health ICT*

*'A hospital without a good ICT system cannot have a high quality of care.'*³²⁴ This declaration from the French representative on the EG sums up the importance of information technology. Of course, it is not the technology *per se* that renders it indispensable, but the information it generates, which information is required for performance and quality assessment. The QoC sub-group also reiterated this point, exemplifying that *'a well-functioning health information system is essential to measure quality of care systematically across hospitals, regions, health professionals, and health care unit.'*³²⁵ The possibility of integrating data sources and databases is becoming a reality and many health authorities have reported that this relatively new technique is proving to be very beneficial in analysing complex pieces of data, which is particularly pertinent since this allows HSPA to operate as a *'platform for generating evidence.'*³²⁶ These developments have been corroborated by the experiences in the EG where many participants and invited experts have highlighted the role technology plays in generating the required data and information for proper performance and quality assessment.³²⁷

³¹⁷ 169 Mona Heurgren. Public Reporting. 2nd HSPA Meeting. Feb. 2015.

³¹⁸ 179 Bernal-Delgado E. ECHO Project. 3rd HSPA Meeting. Brussels. May 2015.

³¹⁹ 258 Klazinga N. Review of Existing Indicators on Quality of Care. HSPA quality seminar. Ljubljana. Sept. 2016.

³²⁰ 254 Kernstock EM. HSPA – Austrian Initiatives. HSPA quality seminar. Ljubljana. Sept. 2016.

³²¹ 257 Schmidt I. HSPA and Public Reporting in Sweden. HSPA quality seminar. Ljubljana. Sept., 2016.

³²² 222 Grech K. Karanikolos M. Nolte E. Quality Policy Focus Group Meeting notes. Brussels. 3 Nov. 2015, pg. 2.

³²³ 223.1-7 Grech K. Quality Policy Focus Group Flip Charts notes. Brussels. 3 Nov. 2015, Chart 2.

³²⁴ 176 Grech K. Personal meeting notes. 3rd HSPA Meeting. Brussels. May 2015, pg. 1.

³²⁵ 217 Expert Group on HSPA. Strategies across Europe to assess quality of care. Mar 2016, pg. 15.

³²⁶ 263 Flavia Carle. Evaluation of integrated health care. Peer Review Meeting, Rome. April 2016.

³²⁷ 262 MdS – Evaluation of integrated health care – minutes. 8 April 2016, pgs. 1-2.

6.6.2.1.3 Technological difficulties

*'A lot of data is collected in national health systems but it is not fully exploited because often authorities do not have capacity or plan to analyse and use it.'*³²⁸ These difficulties were observed by the EG and were based on several factors, including difficulties in data collection and standardisation problems, availability and comparability of data and time lags amongst several other limitations.^{329,330} The EG also encountered difficulties when sharing data of a policy or clinical nature. This was further corroborated by OECD which also expressed similar difficulties when compiling their performance reports.³³¹

Another complication, faced by many EU and OECD countries, is that measurement of indices, such as quality of care, varies not only across countries but also within countries. The reasons for such variations are difficult to explain and are not down to different health systems.³³²

Understanding such variability requires a concerted effort to not only improve overall standards but to also minimise variability in quality and other dimensions of care.³³³ The quality policy group also identified difficulties in relation to variability and lack of standardisation in the coding of clinical conditions and in definitions for certain indicators such as readmission rates.³³⁴

6.6.2.2 Legal basis for performance assessment and evidence-based policy making

The legal implications and ramifications of performance assessment were raised in the very first EG meeting, where references were made to the Shipman Inquiry and the Mid Staffordshire Inquiry. These events had repercussions across the UK and beyond, and spurred on the call for installing adequate performance and quality assessment

³²⁸ 183 DG Sante - Minutes – 4th meeting of Expert Group on HSPA, 9 October 2015. Berlin. Pg 4.

³²⁹ 166 DG Sante - Minutes – 2nd meeting of Expert Group on HSPA, 6 Feb. 2015. Stockholm; Pg. 3-4.

³³⁰ 186 Keith Derbyshire. NHS Outcomes Framework. 4th HSPA Meeting. Oct 2015.

³³¹ 185 Mikko Peltola. EuroHOPE. 4th HSPA Meeting. Oct 2015.

³³² 182 Grech K. Personal meeting notes. 4th HSPA Meeting. Berlin. October 2015. Pg 2.

³³³ 213 OECD (2015). Cardiovascular Disease and Diabetes: Policies for Better Health and Quality of Care. Paris. 2015; pg. 28.

³³⁴ 222 Grech K. Karanikolos M. Nolte E. Quality Policy Focus Group Meeting notes. Brussels. 3 Nov. 2015, pg 4.

systems within health care.³³⁵ The quality sub-group also reviewed the various legal instruments in place across the EU and how the HSPA process is integrated into the legal framework of various countries. Whereas in some countries, quality and performance monitoring is mandatory (France), others developed HSAs as part of national or regional governance arrangements, such as in the development of their national health policies (Portugal, Sweden, Finland).

The quality sub-group further states that *‘in several Member States HSPA activities are not developed to comply with legal requirements, but rather to introduce voluntarily elements of accountability or of better governance of the health systems or sectors of it.’*³³⁶

Many of the participating countries explained their legal frameworks on performance assessment. In 2014, Italy carried out amendments to their legislation on standards and quality of care to incorporate performance assessment into law.³³⁷ The French also have a legal framework for hospitals to share performance data³³⁸ and Germany have legislated to share performance and quality data.^{339,340}

In England, the Health and Social Care Act 2012 paved the way for the NHS Outcomes Framework.³⁴¹ Some jurisdictions have contractual arrangements in place rather than legislative. Austria has established a contract between stakeholders for the measurement of health system outcomes.³⁴²

6.7 Relationship between performance assessment and policy development

The EG considered this subject on many occasions, given that understanding this relationship was one of the main mandates of the EG.

³³⁵ 160 Grech K. Personal Meeting Notes on the 1st EU Expert Group Meeting held on the 10th Nov. 2014, Brussels. 2014, pg. 2.

³³⁶ 217 Expert Group on HSPA. Strategies across Europe to assess quality of care. Mar 2016, pg. 27.

³³⁷ 171 Marina Davoli. The Italian healthcare system. 2nd HSPA Meeting. Feb 2015.

³³⁸ 177 DG Sante - Minutes – 3rd meeting of Expert Group on HSPA. May 2015. Brussels, pg. 2.

³³⁹ 182 Grech K. Personal meeting notes. 4th HSPA Meeting. Berlin. Oct. 2015, pg. 1.

³⁴⁰ 188 Thilo Grüning. Quality improvement through data. 4th HSPA Meeting. Oct 2015.

³⁴¹ 186 Keith Derbyshire. NHS Outcomes Framework. 4th HSPA Meeting. Oct. 2015.

³⁴² 192 Florian Bachner. Austrian HSPA Initiatives. 6th HSPA Meeting. Apr. 2016.

6.7.1 Linking HSPA with policy development

The EG Group was commissioned by CION and the terms of reference for this group were explained in the Methodology section. However, as is sometimes the case, there were other underlying ‘unofficial’ reasons for creating this group.

This was raised in the EG’s first meeting in 2014, where there was an admission that the EU, or more precisely the Employment, Social Policy, Health and Consumer Affairs Council (EPSCO), does not use HSPA as a tool for policy making. However, the Council of Health Ministers acknowledged the importance of knowledge transfer in specific policy areas and consequently, tasked the EG with the responsibility to fill this gap through the generation of new methods, tools and practices to embed HSPA into the European policy cycle.³⁴³

6.7.1.1 Evidence in favour or against link between performance assessment and policy making

Certain long-standing evidence-based policies are starting to have an impact. Anti-smoking policies, such as smoking in public places and plain packaging are registering some success in stemming the increase in smoking prevalence. Similar but less spectacular policies on obesity and salt intake have also been partly successful.

The Expert Group, however, noted that it usually takes considerable time and much effort for evidence to trickle into policy making and an even longer time for these policies to have a beneficial impact upon the population.³⁴⁴

The Belgian and Dutch HSPA each reported instances where policy had been adjusted following the publication of the findings in their respective performance reports. These examples were outlined in several of the meetings held and provided substance for discussion and debate.³⁴⁵

³⁴³ 160 Grech K. Personal Meeting Notes on the 1st EU Expert Group Meeting held on the 10th November 2014, Brussels. 2014, pg. 4.

³⁴⁴ 181 Niek Klazinga. CVD and diabetes – policies for better health and quality of care. 3rd HSPA Meeting. Brussels. May 2015.

³⁴⁵ 191 Pascal Meeus. Performance of the Belgian Health System – Report 2015. 6th HSPA Meeting. April 2016.

The Quality sub-group has also documented recent experiences where national governments are already taking action in some areas requiring attention³⁴⁶, noting that:

*... a common challenge in linking HSPA reporting to policy action lies in how to set targets and standards and in the timeliness of the data and its reporting ... However, policy making is a complex activity, which has to be based on several variables and parameters and not limited to the analysis of performance data.*³⁴⁷

6.7.1.2 Use of HSPA frameworks to inform policy

The Swedish responses to the survey carried out prior to the peer review meeting in Brussels in 2014 showed that their performance reports are being ‘*used both in decision-making and (policy) development within the county councils, and also to serve as base to decide on national policy initiatives.*’³⁴⁸ This was later confirmed in the second EG meeting in 2015, where the Swedish representative explained that their HSPA experience has, on the whole, increased accountability and transparency. Regional comparisons within Sweden have also contributed to improvements in care.³⁴⁹

For the Dutch, feedback into the policy cycle is now well developed where regular meetings are held at Ministry level to review aspects of the HSPA report and devise policy options.³⁵⁰ The Belgians have also reported similar outcomes from their HSPA experience, where specific concrete recommendations for policy makers are drawn up in each iteration of their HSPA report.³⁵¹

Using the analysis from its previous HSPA reports in 2013, the Belgian National Conference of Health Ministers defined several policy priorities, including reducing suicide rates, tackling obesity and improving cancer screening programmes, amongst other interventions.³⁵²

³⁴⁶ 217 Expert Group on HSPA. Strategies across Europe to assess quality of care. Mar 2016. Pg 10.

³⁴⁷ 217 Expert Group on HSPA. Strategies across Europe to assess quality of care. Mar 2016. Pg 11.

³⁴⁸ 244 Questionnaire Response – Sweden. Peer Review on HSPA, Belgium 2014, pg. 4.

³⁴⁹ 169 Mona Heurgren. Public Reporting. 2nd HSPA Meeting. Feb. 2015.

³⁵⁰ 176 Grech K. Personal meeting notes. 3rd HSPA Meeting. Brussels. May 2015; pg. 1.

³⁵¹ 191 Pascal Meeus. Performance of the Belgian Health System – Report 2015. 6th HSPA Meeting. April 2016.

³⁵² 250 Meeus P. HSPA Belgium ... And so what. Peer Review meeting. Brussels. May 2014.

The policy focus group on quality reviewed several good practice examples. The OECD representative outlined how its data and quality reports are increasingly being used to initiate reform in its member states. This is logical since OECD data very often ‘positions’ countries in relation to their peers and highlights areas which require change or improvement. For this purpose, OECD is known to draw on multiple data sources to inform its conclusions.³⁵³

6.7.1.3 Policy cycle, process and tools

From the first encounter in the peer review meeting in 2014, the author realised the difficulties in inserting the HSPA into the policy cycle. Many countries, such as Austria and Portugal, commented that their *‘current HSPA framework has to be embedded more deeply in the policy making process in order to allow for the setting of health targets based on the analysis provided by HSPA.’*³⁵⁴

On the other hand, Portugal did comment that the HSPA provided a *‘critical evidence base necessary to develop the 2011-2015 National Health Plan of Portugal’*³⁵⁵ and the Slovenian State Secretary for Health did emphasise that the newly conceived Slovenian HSPA needs to be integrated into the policy process.³⁵⁶ However, in contrast with the above, countries with longer experience in the HSPA journey often report a loss of interest by policy makers and other stakeholders. As a result, the frequency of HSPA reporting was reduced to every three or four years.

On a more positive note, the policy cycle has also been described as a ‘virtuous circle,’ where data is shared with the public, professionals and policy makers and this in turn generates interest and motivates stakeholders to change their practice or policies.^{357,358} For instance, the Germans use a structured dialogue or peer review process to re-adjust direction if quality indicators of service providers are outside normal range. This is

³⁵³ 223.5 Grech K. Quality Policy Focus Group Flip Charts notes. Brussels. 3 Nov. 2015; Chart 5.

³⁵⁴ 239 Questionnaire Response – Austria. Peer Review on HSPA, Belgium 2014, pg 4.

³⁵⁵ 243 Questionnaire Response – Portugal. Peer Review on HSPA, Belgium 2014, pg. 1.

³⁵⁶ 229 Grech K. Slovenia seminar on HSPA and quality of care. Ljubljana. 28-29 Sept. 2016, pg. 1.

³⁵⁷ 160 Grech K. Personal Meeting Notes on the 1st EU Expert Group Meeting held on the 10th November 2014, Brussels. 2014, pg 3.

³⁵⁸ 166 DG Sante - Minutes – Second meeting of Expert Group on HSPA, 6 Feb. 2015. Stockholm, Pg. 6.

part of the policy cycle feedback loop aimed towards the improvement of services and raising standards of care.^{359,360,361}

A very interesting presentation and discussion formed part of the EG's seventh meeting, where a former Minister in Spain shared his experience in linking performance assessment with policy making. He explained that the key for success is to '*engage all stakeholders in the whole cycle of policy making and implementation.*' He further commented that '*the preparation of good technical documents is not enough; it is vital to engage politicians and to avoid creating a dichotomy between politicians and technicians.*' He continued to state that this cannot be achieved solely using a scientific approach, but rather by being pragmatic and flexible.³⁶²

These 'revelations' were refreshing for those present since it presented the views from a political point of view and provided insight into how the HSPA project can be integrated into policy development. However, from the survey gathered on the experiences of various countries on quality assessment, the quality sub-group noted that many countries reported a '*common challenge in linking HSPA reporting to policy action lies in how to set targets and standards and in the timeliness of the data and its reporting.*'³⁶³ This leads to a certain reluctance on the part of governments to 'institutionalise' HSPA into their policy making bodies and mechanisms. This is a dilemma currently faced by some countries, such as Norway³⁶⁴ and Portugal³⁶⁵ and only time will tell whether HSPA truly becomes a sustainable and long-term proposition.

6.7.1.4 Use of measures and targets to reach policy objectives

The time for targets is upon us. Targets have become an important part of the arsenal at the disposal of performance assessment and have developed into an intricate discipline over time.

³⁵⁹ 182 Grech K. Personal meeting notes. 4th HSPA Meeting. Berlin. Oct. 2015, pg. 1.

³⁶⁰ 183 DG Sante - Minutes – 4th meeting of Expert Group on HSPA, 9 Oct. 2015. Berlin, pg. 2.

³⁶¹ 188 Thilo Grüning. Quality improvement through data. 4th HSPA Meeting. Oct. 2015.

³⁶² 259 DG Sante. Minutes of 7th HSPA Expert Group Meeting. 23 Sept. 2016, pg. 3.

³⁶³ 217 Expert Group on HSPA. Strategies across Europe to assess quality of care. Mar. 2016, Pg. 11.

³⁶⁴ 234 Norwegian National Quality Indicator System. Norwegian Directorate of Health. 2012, Pg. 1.

³⁶⁵ 243 Questionnaire Response – Portugal. Peer Review on HSPA, Belgium 2014, Pg. 8.

England has long used targets for performance monitoring. However, with time, many have become sceptical on their long-term benefit. As aptly put, in describing the NHS Outcomes Framework, a participant at the fourth EG meeting described this period as a time of ‘*targets and terror*’ whilst postulated the possibility that this framework may ‘*hit the target but miss the point*.’³⁶⁶ The EG emphasised that target setting is a means to improve care and services and not a means to an end. Using targets for ranking purposes is another ‘no-go area.’ Whilst using targets as a means of ranking health care providers or health systems is common, there was consensus amongst EG members that targets should not be used for ranking purposes.³⁶⁷

Target setting again proved to be a controversial subject for the EG. The use of targets to incentivise improvement and gain efficiencies was mentioned on several occasions in the course of the participatory research phase. Some authors showed favour and advocated for the introduction of targets as an integral part of any HSPA process. Others were more cautious and whilst performance indicators could be used for target setting, they felt that this should be separate from the actual HSPA process. Various experiences were shared in the EG. The Tuscan region in Italy paved the way for other regions to set the targets for their own providers, basing their targets on the available evidence.³⁶⁸ In Belgium, targets are used to set a ‘road map’ for planning purposes, as part of setting priorities for the different provinces within Belgium.³⁶⁹ The Swedes and French reported marked improvements in outcomes following the introduction of targets, even though these were non-statutory.³⁷⁰

The QoC sub-group acknowledged the difficulty in utilising targets. Its report admits that ‘*the definition of targets and benchmarks is often problematic and implies degrees of subjective assessments*.’³⁷¹ This subjectivity is difficult to overcome, especially if targets are used as a monitoring tool rather than for improvement and reform. This was the experience in the UK where recent debate was dominated by ‘*the use of broad*

³⁶⁶ 182 Grech K. Personal meeting notes. 4th HSPA Meeting. Berlin. October 2015. Pg 2.

³⁶⁷ 183 DG Sante - Minutes – 4th meeting of Expert Group on HSPA, 9 October 2015. Berlin, pg. 2.

³⁶⁸ 166 DG Sante - Minutes – 2nd meeting of Expert Group on HSPA, 6 Feb 2015. Stockholm, Pg. 5.

³⁶⁹ 191 Pascal Meeus. Performance of the Belgian Health System – Report 2015. 6th HSPA Meeting. April 2016.

³⁷⁰ 222 Grech K. Karanikolos M. Nolte E. Quality Policy Focus Group Meeting notes. Brussels. 3 Nov. 2015, pg. 4.

³⁷¹ 217 Expert Group on HSPA. Strategies across Europe to assess quality of care. Mar 2016, Pg. 14.

health system rankings’ and that ‘comparison between the four countries of the UK appears to have become primarily a political issue, rather than a tool for mutual learning.’³⁷²

6.7.2 Comparative policy making

The literature and document analysis has already demonstrated the validity and effectiveness of comparative performance assessment methodologies. It is one of the most powerful tools available to inform or ‘move’ policy into the right direction. Policy makers are particularly sensitive towards comparative assessment which show up discrepancies in the standard or quality of the health service that falls under their responsibility. It plays on the sensibilities of human nature, that of striving to be better than your neighbour or competitor and performance assessment tools have now provided the means to carry out such comparisons in a scientific and robust manner. Larger countries not only have the opportunity for international comparisons but also undergo comparative exercises across regions. For the above reasons, comparative performance assessment was often under discussion in the EG.

6.7.2.1 International and regional cooperation to inform policy

EuroHope is a multicentre research project involving research institutions from Finland, Italy, Hungary, Norway, Scotland and Sweden. The aim of the project was to use individual, local and disease level data to develop methods for performance evaluation and monitoring across jurisdictions and to put forward recommendations for the inclusion of new or revised indicators into the European Community Health Indicators initiative. The research explored methodological challenges, such as definition of episodes, case-mix adjustment and the elimination of selection bias. Whilst the datasets continue to be used for comparative purposes, the methodological framework that was developed ‘*provides a solid starting point for further elaborating an international performance assessment toolkit.*’³⁷³

BridgeHealth was another collaborative effort, focusing upon improving health information in Europe by overcoming the major challenges posed by the diversity and

³⁷² 233 The Health Foundation. How does the NHS compare with health systems in other countries. March 2015, pg. 9.

³⁷³ 185 Mikko Peltola. EuroHOPE. 4th HSPA Meeting. Oct 2015.

fragmentation of health information structures across Europe. Its mandate was to strengthen information capture at regional level to minimise variations, leading to policy actions on better allocation of resources and setting more robust targets for improvement and reform.³⁷⁴

Another interesting cooperative network was created between the German speaking regions of central Europe involving Austria, Germany and Switzerland. The A-IQI network is a collaborative effort looking at performance indicators across various domains for benchmarking purposes with the aim of improving care across the participating hospitals and other health care institutions.³⁷⁵

6.7.2.2 International / regional comparisons of performance to inform policy

As we have seen from the document analysis, comparative performance assessment is one of the most powerful tools available to improve service and forge policy.

6.7.2.2.1 Ranking

Ranking was a frequent topic of the EG's conversations. Although there was a consensus that ranking, in itself, is not desirable, there was, nonetheless, a realisation that most comparative data, charts and figures could be used for ranking purposes.

The visual impact of showing comparative data should not be underestimated and although researchers may not give ranking too much importance, the same cannot be said for policy makers who immediately latch on the 'positional status' of their health system as compared to others. Whilst this cannot be avoided, it should be tackled carefully with a judicious use of the available data to provide explanations.³⁷⁶

This was discussed in detail during the seventh EG meeting, where participants commented that whilst we may have control over national data sets, international comparisons are difficult to control and manage and so the data generated needs to be as transparent as possible, linked to robust scientific methods.

³⁷⁴ 194 Maria Hofmarcher-Holzhacker. Indicator landscape for monitoring HSP. 6th HSPA Meeting. April 2016.

³⁷⁵ 193 Patrizia Theurer. Austrian HSPA-Initiatives. 6th HSPA Meeting. April 2016.

³⁷⁶ 165 Nolte E. HSPA - Goals, tools and state of the art. 1st HSPA Meeting. Nov 2014.

6.7.2.2.2 *Regional comparisons*

Italy has a comprehensive system for health systems performance at regional level. Health care is devolved to the regions where each region is responsible to assess its own performance. Over 13 regions now compare around 300 indicators covering several domains.³⁷⁷ The Ministry of Health provides oversight to allow inter-regional comparisons of performance to be carried out using various benchmarks and a ‘Dartboard’ graphic provides a clear status of the performance of each indicator for each region.³⁷⁸

Sweden also has a similar regional performance system, based on the work of their county councils. Regional comparisons using 189 indicators from 50 different data sources are compiled into an annual report, the first produced in 2006.³⁷⁹ These regional comparisons allow public authorities, patients and the public to ‘*obtain accurate and complete information about healthcare quality and efficiency,*’ thus improving accountability.³⁸⁰ The EG also noted that regional comparisons allow for the implementation of ‘*peer review mechanisms,*’ to stimulate open discussion and feedback into the policy cycle.³⁸¹

6.7.2.2.3 *Variability*

OECD noted that within-country variations are as great as intercountry or regional variations.³⁸² The ECHO project has also uncovered unexpected variation across several performance indicators and has proposed several measures to mitigate against these variations. As ECHO describes it, this includes constructing a ‘*homogeneous knowledge infrastructure*’, whilst developing ‘*comparable indicators across different languages*’.³⁸³

Whilst the study of observed variations is important to understand the ‘*causality of these variations using aggregated data,*’³⁸⁴ a key challenge for managers and policy

³⁷⁷ 172 Nuti S. The performance evaluation system – Tuscany and Italian Regions. 2nd HSPA Meeting. Feb 2015.

³⁷⁸ 166 DG Sante - Minutes – 2nd meeting of Expert Group on HSPA, 6 Feb 2015. Stockholm, Pg 5.

³⁷⁹ 169 Mona Heurgren. Public Reporting. 2nd HSPA Meeting. Feb. 2015.

³⁸⁰ 244 Questionnaire Response – Sweden. Peer Review on HSPA, Belgium 2014, Pg 2.

³⁸¹ 217 Expert Group on HSPA. Strategies across Europe to assess quality of care. Mar. 2016, Pg. 12.

³⁸² 176 Grech K. Personal meeting notes. 3rd HSPA Meeting. Brussels. May 2015, pg. 1.

³⁸³ 179 Bernal-Delgado E. ECHO Project. 3rd HSPA Meeting. Brussels. May 2015; Slide 6.

³⁸⁴ 177 DG Sante - Minutes – 3rd meeting of Expert Group on HSPA. May 2015. Brussels, pg. 4.

makers is not only to improve overall performance but also reduce the variation in performance.³⁸⁵

The quality focus group highlighted several instances where participants reported large variability in performance between regions such as in Italy, Denmark, Finland and Portugal.³⁸⁶ Moreover, the quality sub-group concluded that:

*... the degree of variation in adherence within and across countries present important policy challenges. It suggests a need to identify the reasons why systematic variation exists and develop a better understanding of the factors that could help lift performance among providers and institutions that deliver poor quality care.*³⁸⁷

6.7.2.3 Challenges in comparative policy making

Whilst comparative methods of performance assessment are an invaluable asset, its translation into comparative policy making is fraught with difficulties which the EG acknowledged and discussed at length.

6.7.2.3.1 Challenges of comparative assessment methodologies

Several difficulties have already been highlighted in comparative measurement. The members of the EG shared their perspectives on these challenges. One of the first issues raised by some participants was defining the boundary of measurement. Different countries have different definitions for their health system.

In some instances, it only refers to direct health care services, such as the NHS Outcomes Framework. In others, the health system also incorporates public health and health promotion such as in Portugal. Other systems also include social care within the same definition (Sweden). It is important to define the ‘boundaries’ of the health system, to compare like with like³⁸⁸.

³⁸⁵ 211 Niek Klazinga. CVD and Diabetes-Policies for better health and quality care. Policy Focus Group. Nov. 2015.

³⁸⁶ 223.1-7 Grech K. Quality Policy Focus Group Flip Charts notes. Brussels. 3 Nov. 2015, charts 1, 2, 3, 4.

³⁸⁷ 213 OECD (2015). Cardiovascular Disease and Diabetes: Policies for Better Health and Quality of Care. Paris. 2015; pg. 20.

³⁸⁸ 165 E. Nolte. HSPA - Goals, tools and state of the art. 1st HSPA Meeting. Nov 2014.

Participants in the quality policy group also highlighted the difficulties that arise in interpreting cross country comparative data on specific indicators or set of indicators, where many stated that *‘it is often difficult for practitioners and policy makers to interpret what a country positioning means in terms of performance and what policy action needs to be taken in order to improve performance.’*³⁸⁹

6.7.2.3.2 Challenges related to size and maturity

The author had the opportunity to interact frequently with other experts from countries facing the same challenges as Malta, primarily due to their size. ‘Notes were compared’ with countries, such as Slovenia, Estonia, Austria, Cyprus, Greece and Croatia. The author also had the opportunity to present and discuss these challenges during various meetings and conferences.

Developmental challenges refer to the difficulties encountered in creating a HSPA model *de novo* without having prior experience. For this reason, many jurisdictions, such as Malta, Estonia and Portugal approached external organisations, such as WHO for assistance and guidance. The lack of a local model also requires the adoption or adaptation of foreign frameworks, including choosing context appropriate dimensions. The identification of suitable indicators is also challenging due to the quandary between extracting indicators from local sources versus internationally drawn indicators. Belgium was faced with this particular dilemma in its first HSPA iteration. Local ‘political’ influences also need to be contended with in a small community or region, sometimes overriding more objective scientific criteria.

Implementation difficulties usually related to the lack of comprehensive information systems leading to gaps in data collection. HSPA requires a robust, mature ICT infrastructure to be able to collect and analyse the required data in a routine manner. Greece presently faces this difficulty as policy makers are currently more focused on fiscal indicators rather than health outcome indicators.³⁹⁰ Finland also acknowledged that data capture is problematic.³⁹¹ There are also cultural barriers that need to be

³⁸⁹ 224 EOHSP. Policy focus group on cardiovascular diseases and diabetes. Policy Focus Group. April 2015; Slide 2.

³⁹⁰ 222 Grech K. Karanikolos M. Nolte E. Quality Policy Focus Group Meeting notes. Brussels. 3 Nov. 2015, pg 2.

³⁹¹ 223.1-7 Grech K. Quality Policy Focus Group Flip Charts notes. Brussels. 3 Nov. 2015; Chart 2.

overcome, especially in trying to inculcate an ethos of accountability and transparency such as was the case in Austria and Slovenia. Analytical and interpretative resources and expertise are sometimes lacking and may need to be outsourced. Once the data is analysed, smaller populations could present additional difficulties related to size in terms of small denominators, leading to large time trend variations, as experienced by Malta and Cyprus. Also, results can potentially be traced to source, and so confidentiality and data protection issues are more accentuated in smaller states.

Another challenge is internal comparability or the lack thereof. Small countries cannot compare data findings internally and need to revert to external comparators.³⁹² This is not without its own inherent limitations and the quality sub-group understood this limitation when expressing that *‘some countries report challenges also when data were not immediately comparable with international sources. The issue of comparability with international sources was more serious in small countries, which cannot define internally comparable benchmarks.’*³⁹³

There are also policy challenges due to the inherent proximity between practitioners, researchers and policy makers. This could raise issues of objectivity and independence from interference or undue influence.³⁹⁴

6.7.2.3.3 Overcoming the challenges

Intercountry and regional comparisons are a powerful means to direct policy and improve care delivery. However, this approach comes with a warning. The interpretation of this data must take into consideration the contextual, political, socio-economic and cultural factors, which ultimately impinge upon the performance of the health system.³⁹⁵

The conclusions reached by the EG show a clear realisation that *‘international and within country comparisons can be fraught with difficulties and loopholes.’* However,

³⁹² 241 Questionnaire Response – Malta. Peer Review on HSPA, Belgium 2014; pg. 6.

³⁹³ 217 Expert Group on HSPA. Strategies across Europe to assess quality of care. Mar. 2016. Pg. 35.

³⁹⁴ 228 Grech K. The challenges of developing and implementing a HSPA Framework - A small state perspective. Sept. 2016.

³⁹⁵ 256 Federico P. HSPA EU Expert Group. Conclusions and recommendations. HSPA quality seminar. Ljubljana. Sept. 2016.

the EG also expressed optimism that *‘performance information derived from international comparisons can provide the basis for further scrutiny and a deeper comprehension of what policies are required to improve the status quo.’*³⁹⁶

6.7.3 The political process

We have seen how the political process is shaped by numerous factors. This was discussed at length during the proceedings of the EG, given that one of the main objectives of the EG was to understand more the impact that performance assessment has on policy making.

6.7.3.1 The political prerogative

Whilst policy making is the purview of politicians, evidence through the assimilation of performance data is increasingly influencing the political process. This theme discusses this matter in more detail.

6.7.3.1.1 The third revolution in health care

The advent of performance measurement in health care was described as the ‘third revolution in health care’ by Relman (1988). One may think that this so-called revolution came about due to technological advances in the ability of measuring complex processes in health care, but this is not the case.

Although the early stages of performance assessment in health care could be traced to the turn of the new millennium with the publication of the World Health Report by WHO, it really gained momentum following the 2008 financial crisis. This event changed the face of many sectors besides the financial and banking sector. The health sector was not spared. Rising public expectations, a call for more cost-effective treatments, sustaining a health system with ever increasing costs and the need for more transparency and accountability, amongst other levers, all contributed to the rise of performance assessment and HSPA during the past decade.³⁹⁷ As one can surmise, these factors were driven by political and/or economic considerations, and were discussed at length in the EG’s fourth meeting.³⁹⁸

³⁹⁶ 217 Expert Group on HSPA. Strategies across Europe to assess quality of care. Mar 2016, pg. 13.

³⁹⁷ 165 Nolte E. HSPA - Goals, tools and state of the art. 1st HSPA Meeting. Nov 2014.

³⁹⁸ 185 Mikko Peltola. EuroHOPE. 4th HSPA Meeting. Oct 2015.

The relationship between evidence and policy making is a tenuous one. It requires careful nurturing, a mutual understanding and time to mature. A former minister from Spain gave his viewpoint at the seventh EG meeting, where he advocated greater engagement with policy makers and commented that merely ‘elevating’ technical documents to policy makers does not work and continues to perpetuate the ‘us and them’ mentality, rather than overcome the ‘*dichotomy between politicians and technicians.*’ However, the EG acknowledged that this is an arduous challenge, especially when consensus is required across political parties and doctrines. Indeed, this former politician concluded that this is ‘*not science but a very messy process,*’³⁹⁹ in the sense that a pragmatic, flexible approach should be adopted, rather than the exclusive application of rigorous scientific methods.⁴⁰⁰

6.7.3.1.2 Reaching political consensus at European level

From the very first EG meeting, it was declared that a common EU HSPA framework would probably be difficult to achieve,⁴⁰¹ and indeed there is, as yet, no universally accepted HSPA framework at European level. This realisation conditioned all the discussions and conclusions reached throughout the tenure of the EG. Apart from being politically undesirable, the EG also acknowledged that there are serious technical difficulties in formulating a common international HSPA model, including language barriers and a lack of a balanced set of indicators.⁴⁰² Hence, at that stage of the HSPA journey, there was a commitment to share experiences for mutual improvement and to discuss and collaborate on methodologies and development of common indicators, as well as improving data availability and comparability. This falls short of a common HSPA approach and it is not yet clear whether this will materialise with time.

6.7.3.2 Reforms

The Expert Group had several presentations on reforms. This served as an eye opener after realising that HSPA became an enduring feature of any reform carried out over

³⁹⁹ 252 Grech K. Personal Meeting Notes on 7th HSPA Meeting. Brussels, 23 Sept. 2016, pg. 2.

⁴⁰⁰ 259 DG Sante. Minutes of 7th HSPA Expert Group Meeting. 23 Sept. 2016, pg. 3.

⁴⁰¹ 160 Grech K. Personal Meeting Notes on the 1st EU Expert Group Meeting held on the 10th November 2014, Brussels. 2014; pg. 4.

⁴⁰² 194 Maria Hofmarcher-Holzhaecker. Indicator landscape for monitoring HSP. 6th HSPA Meeting. April 2016.

the past decade. Many countries and regions incorporated HSPA into their reform process, especially when developing a national plan or strategy which required monitoring and regular assessment. In recognition of the strategic importance of the reform agenda, the EU has set up a specific unit (Structural Reform Support Service) to support structural reforms in member states. This unit has participated in some of the EG's deliberations since performance assessment is increasingly being linked to reforms and political change.⁴⁰³

The Austrian Health Care Reform of 2013 had, as one of its four key areas of focus, 'Health Care Outcomes.'⁴⁰⁴ The inclusion of performance assessment was mandated through the incorporation of '*outcome measurement into a health governance process*.'⁴⁰⁵ Other countries have also linked HSPA with their internal reforms. Sweden and Portugal employed national and regional performance assessment data to direct their reforms at primary care level. Estonia was also in the process of instituting quality reforms utilising quality indicators as proxies. Some countries, such as Norway use OECD performance data to activate reforms in specific areas, using OECD's HCQI project to compare Norway's status with its peers.⁴⁰⁶

6.8 Improving health care delivery through performance monitoring

*Several of our hosps have been good enough to send me their statistics this year. Among these, St. Bartholomew has unquestionably the best. (Though I think he might do still more in improving his Statistical Forms). And Guy, who used to be the best, is now unquestionably the worst.*⁴⁰⁷

This is a quotation taken from Florence Nightingale's notes to James Paget on hospital statistics, circa 1861/62. It encapsulates the importance of performance assessment and measurement and its role in improving services.

⁴⁰³ 229 Grech K. Slovenia seminar on HSPA and quality of care. Ljubljana. 28-29 Sept 2016, pg. 1.

⁴⁰⁴ 192 Florian Bachner. Austrian HSPA Initiatives. 6th HSPA Meeting. April 2016.

⁴⁰⁵ 193 Patrizia Theurer. Austrian HSPA-Initiatives. 6th HSPA Meeting. April 2016.

⁴⁰⁶ 223.3 Grech K. Quality Policy Focus Group Flip Charts notes. Brussels. 3 Nov. 2015, Charts 3, 4, 5.

⁴⁰⁷ 165 Nolte E. HSPA - Goals, tools and state of the art. 1st HSPA Meeting. Nov 2014; Slide 2.

6.8.1 Performance assessment as a tool for service improvement

There is enough evidence to suggest that quality indicators are used primarily to assess and improve health care performance and that the main driver behind national HSPAs is performance improvement.⁴⁰⁸

6.8.1.1 Use of HSPA frameworks for service improvement

Participants in the first EG meeting agreed that performance assessment is only a means to an end, that of service improvement (and secondarily, policy making).⁴⁰⁹ This notion was reinforced in the second and third meetings where a performance evaluation system has been touted to drive improvement in Italy⁴¹⁰ and where in France it was viewed as an opportunity to improve standards.⁴¹¹

In the fourth EG meeting, we heard how in Germany *'more than 3.2 million records from more than 1,500 hospitals are collected every year,'* as part of its performance assessment system to assure and improve standards of care in hospitals.⁴¹² The peer review meeting in Slovenia disclosed the thinking behind Slovenia's nascent HSPA, where one of its objectives was to *'provide an objective reference for the development of quality improvement strategies and action at the national and provider level.'*⁴¹³

6.8.1.2 Accountability

The EG agreed that one of the main aims of HSPA is to improve accountability and transparency in the delivery of health care.⁴¹⁴ This is the primary objective for the NHS Outcomes Framework, where it *'provides an accountability mechanism between the Secretary of State for Health and the NHS Commissioning Board.'*⁴¹⁵ One the main aims of the Belgium's HSPA is also *'to provide a transparent and accountable*

⁴⁰⁸ 217 Expert Group on HSPA. Strategies across Europe to assess quality of care. Mar 2016, Pg. 51.

⁴⁰⁹ 160 Grech K. Personal Meeting Notes on the 1st EU Expert Group Meeting held on the 10th November 2014, Brussels. 2014; pg. 2.

⁴¹⁰ 172 Nuti S. The performance evaluation system – Tuscany and Italian Regions. 2nd HSPA Meeting. Feb 2015.

⁴¹¹ 177 DG Sante - Minutes – 3rd meeting of Expert Group on HSPA. May 2015. Brussels, pg. 2.

⁴¹² 183 DG Sante - Minutes – 4th meeting of Expert Group on HSPA, 9 Oct. 2015. Berlin, pgs. 1-2.

⁴¹³ 253 Poldugrovac M. Quality Indicators in Slovenia, Problems and Objectives. HSPA quality seminar. Ljubljana. Sept. 2016; Slide 15.

⁴¹⁴ 259 DG Sante. Minutes of 7th HSPA Expert Group Meeting. 23 Sept. 2016, pg. 2.

⁴¹⁵ 183 DG Sante - Minutes – 4th meeting of Expert Group on HSPA, 9 October 2015. Berlin, pg. 3.

*view of the (Belgian) health system performance.*⁴¹⁶ Malta's HSPA is also based on monitoring and evaluating the performance of the Maltese health system.⁴¹⁷

In those countries with a private/public mix of service provision, creating an equitable transparent method of monitoring of standards is important. HSPA provides this framework as it does not distinguish, or rather, does not discriminate between service providers. Italy and France have understood this clearly in the enforcement of standards in private and state hospitals alike.⁴¹⁸ From presentations held in the peer review meeting hosted in Slovenia, it became apparent that the Slovenian authorities were struggling with the accountability relationships between the indicators developed as part of the HSPA process and the services the HSPA is meant to monitor.⁴¹⁹ They admitted that further internal discussions and clarifications were required and the peer review meeting assisted in providing some clarity. This is a common dilemma that many jurisdictions face when devising their HSPA for the first time as only experience provides clarity over time.

6.8.2 The performance assessment of quality of care

The EG chose quality of care as a main theme for its deliberations in the first year because it was viewed as an important measure of performance and also a key dimension that is measured by all health care providers. A Quality Sub-group was formed to consider this aspect specifically over 2015. The author formed part of this sub-group. The Quality Sub-group met outside the main meeting and organised several teleconferences. It also organised a policy focus group on quality of care and co-organised a peer review meeting on quality of care in Ljubljana.⁴²⁰

6.8.2.1 Conceptual framework

OECD views '*quality of health care services in the overall context of health system performance, population health and health system development*' and consists of

⁴¹⁶ 191 Pascal Meeus. Performance of the Belgian Health System – Report 2015. 6th HSPA Meeting. April 2016; Slide 7

⁴¹⁷ 260 DG Sante. Minutes of 6th HSPA Expert Group Meeting. 7 April 2016, pg. 3.

⁴¹⁸ 177 DG Sante - Minutes – 3rd meeting of Expert Group on HSPA. May 2015. Brussels, pg. 2.

⁴¹⁹ 253 Poldugrovac M. Quality Indicators in Slovenia, Problems and Objectives. HSPA quality seminar. Ljubljana. Sept. 2016.

⁴²⁰ 227 HSPA Expert Group. HSPA seminar discussion paper. Ljubljana, Slovenia. 28-29 Sept. 2016, pg. 2.

effectiveness, safety and person centeredness.⁴²¹ Given that OECD reports extensively on quality as part of its HCQI project, its publications were used as reference points for the EG and the Quality sub-group to generate the required debate and deliberations on this subject.⁴²² Their report on cardiovascular disease and diabetes served as a backdrop for the quality focus group (Organisation for Economic Co-operation and Development, 2015).

OECD reports that the implementation and maintenance of quality in health care organisations depend upon the extent and type of resources that are invested into the system, including financial expenditure. However, the *‘gains are not automatic and depends on how resources are allocated and managed.’* This is perhaps why some countries, such as Denmark, Luxembourg, Netherlands and Norway regularly outperform others in quality of care and other areas.

This seems to suggest that *‘certain health system characteristics may have a bearing on performance, but this analysis is (as yet) exploratory.’*⁴²³ Nonetheless quality of care in most developed countries is improving where many *‘governments have introduced substantive reforms and invested significant resources to improve the quality of care provided to patients.’*⁴²⁴

6.8.2.2 Quality of care indicators

Different models subscribe to several varieties of quality indicators. These are derived from various clinical and managerial disciplines, such as population-based factors (potential years of life lost from all causes), acute care (fatality/mortality rates, time to surgery post hip fracture, re-admission rates) and primary and community care (potentially avoidable hospital admission rates for chronic conditions, prescribing rates for antibiotics, annual incidence rate of diabetic patients with complications) amongst other areas. *‘The inclusion of quality indicators is an important development*

⁴²¹ 258 Klazinga N. Review of Existing Indicators on Quality of Care. HSPA quality seminar. Ljubljana. Sept. 2016; Slide 8.

⁴²² 211 Niek Klazinga. CVD and Diabetes-Policies for better health and quality care. Policy Focus Group. Nov. 2015.

⁴²³ 211 Niek Klazinga. CVD and Diabetes-Policies for better health and quality care. Policy Focus Group. Nov. 2015; Slides 40 & 29.

⁴²⁴ 213 OECD (2015). Cardiovascular Disease and Diabetes: Policies for Better Health and Quality of Care. Paris. 2015, pg. 21.

*in the evolution of hospital performance analysis.*⁴²⁵ However, in apparent contradiction with the above statement, a significant but separate conclusion of the quality sub-group was that *‘quality indicators do not measure quality (per se) but can only indicate that a system may be delivering high or poor quality. This implies that indicators have to be read within a broad context – a key principle of HSPA – and no indicator should be read alone.’*⁴²⁶ This statement is in keeping with the general approach towards HSPA, that of considering the holistic picture rather than focusing on single indicators on their own, where quality indicators are but part of a ‘basket’ of indicators to measure performance.⁴²⁷

6.8.2.3 Policy focus group on quality

The findings from this focus group have already been reported under several other themes. This section will explain aspects of the meeting which are bespoke to this theme. *‘The policy focus group (sought) to take these analytical debates a step further to help countries understand the range of reasons that might explain their particular positioning on a given indicator.’* The purpose of the focus group was to examine the possible reasons for variability of quality care and propose policy actions to address the issues raised.⁴²⁸ Comparative performance assessment demonstrated significant variations between countries, which creates difficulties for practitioners and policy makers to interpret comparative data in terms of performance. The policy focus group concluded that in order to derive accurate and convincing conclusions from comparative data on quality, detailed contextual information is required on the health systems being assessed. This level of granularity is necessary to inform policy development in the countries concerned.

The policy focus group concluded that it is not always possible to explain the variations using available evidence, such as was shown in a study of geographical variations of avoidable hospitalisations in Switzerland.⁴²⁹

⁴²⁵ 213 OECD (2015). Cardiovascular Disease and Diabetes: Policies for Better Health and Quality of Care. Paris. 2015, pg. 143.

⁴²⁶ 217 Expert Group on HSPA. Strategies across Europe to assess quality of care. Mar 2016; Pg. 14.

⁴²⁷ 235 Marina K., Grech, K., Nolte E. Chapter 3 Policy actions in relation to HSPA – Quality of Care. Dec. 2015.

⁴²⁸ 212 EOHSP. Policy focus group on cardiovascular diseases and diabetes. Policy Focus Group. Nov 2015; Slide 4.

⁴²⁹ 214 EOHSP. Policy focus group on cardiovascular diseases and diabetes. Nov 2015.

This study concluded that:

... after taking into account many known factors, including health expenditure, supply of primary care physicians, specialists, hospital beds, pharmacies, as well as for income, education, unemployment and after adjusting for co-morbidities, geographical variations in hospitalisation rate remained substantial but unexplained by supply or demand (Eggli, et al., 2014).

6.8.3 The performance assessment of integrated care

Integrated care (IC) has gained considerable importance over the past few years as a new approach for organising clinical services and initial evidence has shown that *‘integrated care has a benefit on the quality of patient care and improved health or patient satisfaction outcomes.’*⁴³⁰ The EG focused on how to measure the effects and results of integrated care, given that HSPA models invariably include IC as one of the dimensions for measurement.⁴³¹ Hence, this was discussed during the course of the last three meetings of the EG and during a peer review meeting held in Rome in 2016. It was also the topic of discussion at a policy focus group organised to discuss the performance assessment of IC.

The ultimate objective of the EG was to *‘contribute to the establishment of a framework and a methodology for assessing the performance of integrated care systems, and in so doing, provide a basis for policy makers who are planning to introduce integrated care systems into their health system.’*⁴³²

These discussions and analysis resulted in the publication of a report by the EG entitled ‘BLOCKS - Tools and methodologies to assess integrated care in Europe’ where it concluded that measuring the performance of integrated care systems is a complex process reflecting the multiple tiers of service delivery (Expert Group on Health Systems Performance Assessment, 2017).

⁴³⁰ 199 Ellen Nolte. Integrated care-key concepts, challenges and opportunities. 6th HSPA Meeting. April 2016; Slide 17.

⁴³¹ 198 Olivia Wigzell. EU Expert Group on HSPA. Mission, results and activities. 6th HSPA Meeting. April 2016.

⁴³² 206 EU Expert Group on HSPA. Performance assessment of integrated care. Orientation note. September 2016, pgs. 1-2.

6.8.3.1 Types and levels of integration

For a relatively new concept, there are several types of models of IC to choose from. Whilst it is not the purpose of this section to delve into a detailed description of IC, some basic understanding of this new approach is needed, to understand how to measure its effects. IC originated as an alternative to existing care delivery models in the hope of better addressing the needs of today's generation of patients.

Current models of care do not meet the complex needs of patients due to the chronicity of many illnesses, the ageing phenomenon and financial and resource constraints. A need was felt to overcome this fragmentation of services.⁴³³ A presentation by the European Regional and Local Health Authorities (EUREGHA) project to the EG clearly outlined the various models of IC at play. Integration occurs at local, regional, national, cross-country or international level. Integration can also occur vertically and horizontally between clinical services, professionals, organisations, systems and population-based interventions.⁴³⁴ Many frameworks have now been developed to reflect the key elements of how to successfully assimilate IC into the existing models of care, although these do not necessarily measure the success of otherwise of this new approach of care.⁴³⁵

6.8.3.2 Policy focus group on integrated care

The policy focus group discussed at length how IC should be incorporated into the HSPA process. Some believed current HSPA models already contain indicators that directly or indirectly measure IC and hence, it is not necessary to develop new indicators specifically to measure IC. Others argued that HSPA does not refer explicitly to integration of care and so requires bespoke indicators to measure this new aspect of care. However, all participants at least agreed that since IC is a care process which requires structural changes and novel resources, any HSPA needs to contain both process and structure indicators to successfully measure the effects of IC apart from the usual outcome measures.

⁴³³ 199 Ellen Nolte. Integrated care-key concepts, challenges and opportunities. 6th HSPA Meeting. April 2016.

⁴³⁴ 196 Toni Dedeu. Organisational Changes for Successful Implementation of IC. 6th HSPA Meeting. April 2016.

⁴³⁵ 203 Viktoria Stein. Building the competencies for sustainable IC. 6th HSPA Meeting. April 2016.

The focus group also stated that it is important to identify the mechanisms between these indicators, i.e. the connection between structure, process and outcomes, given that integration indeed measures the impact of this connectedness.⁴³⁶ The focus group continued to reflect on the possible frameworks for the assessment of IC. This includes measuring integration at patient, hospital, primary care and community levels or even integration between the different geographical areas and regions. Alternatively, the success of IC could be measured between social and health care. Although there was a debate on which model would work best, there was consensus that *‘any model has to be general and flexible, to be adaptable to different national (or local) contexts, with different goals and value.’*⁴³⁷

Prior to the policy focus group, a survey was distributed to elicit responses from participating countries. Twenty (20) member states responded to the survey. Despite large variation in health systems design, countries participating in the survey reported a number of similar dimensions and challenges related to IC. These include the challenge to coordinate care in a more structured manner. However, many respondents reported that they are still in the process of developing formal assessment mechanisms for IC. This is not surprising given that this approach is still relatively new for many. Examples of uses of measurement tools included an outcomes framework linked to the reforms in Austria and administrative and quality registries, such as cancer registries in Luxembourg. The survey also disclosed some legal instruments that have been introduced to assess integrated care, such as the Care Provision Strengthening Act in Germany.⁴³⁸

6.8.3.3 Measuring the effects (benefits) of integrated care

Much of the discussion and debate that ensued in the EG and during the peer review and focus group meetings revolved around the perceived or measured benefits or outcomes of IC. One of the main traits of IC is related to patient information and the concept that information (should) travel with the patient. This is one of the cornerstones of care at an EU level, where much effort and resources are being devoted for the seamless integration of patient information across Europe and beyond.

⁴³⁶ 225 Grech K. Integrated Care Policy Focus Group Meeting notes. Brussels. 22 Sept. 2016.

⁴³⁷ 259 DG Sante. Minutes of 7th HSPA Expert Group Meeting. 23 Sept. 2016, pg. 4-5.

⁴³⁸ 215 E. Nolte. Policy Focus Group on performance assessment of integrated care. Aug 2016, pg. 5.

An important part of the work the EG considered was the identification of a core set of indicators for measuring the performance of IC. The discussion paper produced in preparation of the policy focus group outlined the main criteria needed to identify the most appropriate indicators, particularly to ensure that *‘the evidence shows that taking a particular action leads to some desired outcome.’* These criteria include the usual parameters of objectivity, availability, contextual relevance, attributability, timeliness, interpretability, comparability, feasibility, relevance to policy action, as well as others.⁴³⁹

6.8.3.4 Models of policy change incorporating integrated care

The author had the opportunity to examine examples of good practice which favoured policy changes consequent to the introduction of integrated care into their service delivery model. The Catalan region in Spain has been at the forefront of delivering innovative methods of care using electronic integrated care models. They have developed a regional strategy on the introduction of e-models of care using electronic means of care for patients such as health and social care intervention plans, pharmacy prescriptions and how to merge social and health care practices into a shared care plan for its community as part of an e-platform for managing health and social care process in Catalonia.⁴⁴⁰

Following the Christie Commission report in 2011, Scotland has embarked on reviewing its models of care and consequently introduced new legislation to develop new integrated care structures and processes. This has led to changes in the allocation of resources, the creation of new structures and processes and the reorientation of social and health care services. In fact, thirty two new health and social care ‘partnerships’ were created to jointly deliver care in the community, social care and primary care.⁴⁴¹ Interestingly, bylaws of the main act were also passed outlining a whole array of targets, measures and indicators to measure integrated care.⁴⁴² As far

⁴³⁹ 215 Ellen Nolte. Policy Focus Group on performance assessment of integrated care. Aug 2016, pg. 3.

⁴⁴⁰ 204 Toni Dedeu. Integrated Care Developments. Examples from European Regions. 6th HSPA Meeting. April 2016.

⁴⁴¹ 204 Toni Dedeu. Integrated Care Developments. Examples from European Regions. 6th HSPA Meeting. April 2016.

⁴⁴² 208 Scottish Government. Core Suite of Integration Indicators. March 2015.

as can be ascertained, this is one of the very few instances where the specifics of performance assessment have been incorporated into law.⁴⁴³

The peer review meeting in Rome highlighted the best practices for the assessment of Integrated Care Pathways (ICP). This programme has its roots in the Lombardy region and was extended to the other regions of Italy for the creation of a national evaluation system of ICP. This has been incorporated into Italy's national HSPA framework and includes a '*comparative evaluation of health care organisation models both for chronic and acute diseases and identification of better health care models in terms of effectiveness, cost-efficacy, economic sustainability*'.⁴⁴⁴ Whilst this was considered a significant development in Italy, its impact upon policy formulation at regional or national level is not yet clear and requires further elucidation, even though OECD also advocates a deeper assessment of the performance along the entire pathway of preventive and care management programmes.⁴⁴⁵

6.9 National and international perspectives

One of the most rewarding aspects of the author's experience on the EG was his interaction with national and international HSPA experts who provided their unique and inestimable perspective on the intricacies of performance assessment generally and HSPA in particular.

6.9.1 Promoting performance assessment

As with every new endeavour, HSPA requires support and nurturing and whilst it has found a home in certain jurisdictions and organisations, its acceptance and incorporation into the performance assessment paradigm has not been universal.

6.9.1.1 Promoting performance assessment across Europe

The creation of the HSPA Expert Group by CION and the interest HSPA has generated at various levels within the EU are already testimony of the support and attention this

⁴⁴³ 207 The Public Bodies (Joint Working) (Content of Performance Reports) (Scotland) Regulations 2014, pg. 2.

⁴⁴⁴ 263 Flavia Carle. Evaluation of integrated health care. Peer Review Meeting, Rome. April 2016; Slide 21.

⁴⁴⁵ 213 OECD (2015). Cardiovascular Disease and Diabetes: Policies for Better Health and Quality of Care. Paris. 2015, pg. 14.

subject is generating at EU level. The document analysis has amply demonstrated that both national authorities and international organisations have boarded the HSPA bandwagon and are developing systems, committing resources and lending political support towards performance assessment. Whether this is just a fad, a passing trend, is yet to be determined, but from the author's experience over the past three years, it would seem that it is here to stay. This is also corroborated by the mandate given to the EU Health Commissioner Andruikaitis where he was asked to *'develop expertise on performance assessments of health systems, drawing lessons from recent experience, and from EU-funded research projects to build up country-specific and cross-country knowledge which can inform policies at national and European level.'*⁴⁴⁶

From the author's initial participation in the peer review meeting in Brussels in 2014, an official from CION explained that HSPA was already increasing in relevance and the need for an assessment framework was felt in the context of the European Semester, due to the focus on the sustainability of public finances and the efficiency of public spending after the 2008 crisis.⁴⁴⁷ This same meeting clearly outlined the position of the EU on HSPA wherein it was stated that:

*... although there is no claimed plan or drive to create an EU wide common HSPA framework the focus is to increase Member States' impetus in this respect and ensure a certain level of consistency and standardisation so as to facilitate greater comparability.*⁴⁴⁸

The first EG meeting served as an eye opener into the EU's interest in this subject. There were, and still are, no less than 5 separate EU Directorates with an intensive interest in performance assessment, namely DG SANCO (later SANTE), DG ECFIN, DG Employment, DG Research and Eurostat.⁴⁴⁹ Between these there were even more resources and tools dedicated to performance measurement and indicators, such as the System of Health Accounts, the Expert Group on Health Information, the Economic Policy Committee, the European Commission Statistics on Income and Living

⁴⁴⁶ 194 Maria Hofmarcher-Holzhacker. Indicator landscape for monitoring HSP. 6th HSPA Meeting. April 2016; Slide 8.

⁴⁴⁷ 237 Ralf Jacob. EU Policy Context. Peer Review Meeting, Brussels, May 2014.

⁴⁴⁸ 238 Grech K. Peer Review - Social Protection Committee. HSPA Brussels, 19-20 May 2014; Pg. 1.

⁴⁴⁹ 160 Grech K. Personal Meeting Notes on the 1st EU Expert Group Meeting held on the 10th November 2014, Brussels. 2014, Pg. 3.

Conditions (SILC), the Classification of the Functions of Government (COFOG), the European Health Interview Survey (EHIS), the European System of Integrated Social Protection statistics (ESSPROS), the European Health Information System, Heidi, ECHI, Reflection Process of Health Systems, Subgroup 5 on Effective, Accessible and Resilient Health Systems, Social Protection Committee, JAF (Joint Assessment Framework), EuroReach and ECHO, to mention but a few.⁴⁵⁰

Many consider this not only as overkill, but a dire waste and duplication of resources, expertise and energy. Whilst there are attempts at sharing information between these different initiatives, many, including this author, view this situation with bewilderment and wonder why these resources cannot be streamlined.

This perspective was again reflected by the author during the sixth Expert Group where, during a presentation of the Bridge project, participants questioned why so many different frameworks were conceived, given that they are very similar to each other, having also analogous dimensions and indicators.⁴⁵¹ On the positive side, this certainly confirms the interest and support at EU level towards performance assessment as reaffirmed by the EU Council's agenda to ensure effective, accessible and resilient health systems.⁴⁵² DG Sante's particular focus on HSPA was later confirmed following the creation of a specific new Unit responsible only for HSPA.⁴⁵³

6.9.1.2 Role of national organisations

Many speakers and experts invited to the expert group and peer review meetings presented the perspective and experience of the organisation they represented. In 2014, in the survey conducted prior to the peer review meeting in Brussels, the German response stated that there was no federal or '*nationwide approach to perform a regular Health System Performance Assessment in German.*' However, the Robert Koch Institute was tasked with '*supporting and strengthening the process of a systematic monitoring concerning the health status of the population, the underlying health*

⁴⁵⁰ 161 DG Sante_Minutes_1st meeting of Expert Group on HSPA, 10 Nov. 2014. Brussels, Pgs. 4-5.

⁴⁵¹ 261 Grech K. Personal meeting notes. 6th HSPA Meeting and Seminar on Integrated Care. Rome. April 2016, pg. 2.

⁴⁵² 194 Maria Hofmarcher-Holzhacker. Indicator landscape for monitoring HSP. 6th HSPA Meeting. April 2016.

⁴⁵³ 261 Grech K. Personal meeting notes. 6th HSPA Meeting and Seminar on Integrated Care. Rome. April 2016, pg. 1.

*determinants and the utilisation of specific health care services.*⁴⁵⁴ In a new development, presumably in cognisance of the previous admission of not having national oversight on performance assessment, the Institute for Quality Assurance and Transparency in Health Care (IQTIG) was established in Germany in 2015, with the responsibility of examining the quality of care in inpatient and outpatient care to improve care to patients through regulation.⁴⁵⁵ According to the Director of this new institution, its creation is testimony of Germany's commitment towards performance assessment as a means to improve services.⁴⁵⁶

In Sweden, similar to the German experience, due to the regional basis of the health system, the Swedish National Board of Health and Welfare and the Swedish Association of Local Authorities and Regions jointly conduct performance assessment reviews based on the data collected at county and local level.⁴⁵⁷

Whilst Denmark does not have a national HSPA framework, certain components of its health system have a monitoring and assessment function, such as the Danish General Practice Quality unit (Dak-E) which provides a '*performance measurement system aimed at monitoring and improving the quality of Danish General Practice.*'⁴⁵⁸

6.9.1.3 Role of international and regional organisations and networks

The document analysis raised numerous references of EU and international organisations involved in performance assessment and HSPA. Nolte noted that organisations such as OECD, WHO and the Commonwealth Fund carried out 'macro level' performance assessments.⁴⁵⁹

The OECD was an active and regular participant in the EG's deliberations. It provided numerous examples, evidence and case studies of the diffusion of performance assessment in OECD's member states and beyond. Its publications on Health Policies Studies and the reports from OECD's HCQI projects provide invaluable information

⁴⁵⁴ 240 Questionnaire Response – Germany. Peer Review on HSPA, Belgium 2014, pg. 1.

⁴⁵⁵ 183 DG Sante - Minutes – 4th meeting of Expert Group on HSPA, 9 October 2015. Berlin, pg. 2.

⁴⁵⁶ 184 Christof Veit. Can we govern Health Care with Quality Data. 4th HSPA Meeting. Oct 2015.

⁴⁵⁷ 244 Questionnaire Response – Sweden. Peer Review on HSPA, Belgium 2014, pg. 2.

⁴⁵⁸ 213 OECD (2015). Cardiovascular Disease and Diabetes: Policies for Better Health and Quality of Care. Paris. 2015, pg. 100.

⁴⁵⁹ 165 Nolte E. HSPA - Goals, tools and state of the art. 1st HSPA Meeting. Nov 2014.

and insight into the performance of various health systems and how these compare with each other.⁴⁶⁰ Over the years, the OECD has collaborated more intensely with CION and WHO in the production of the Health at a Glance Europe reports, where there was increasingly greater convergence between the indicators assimilated by the OECD's quality project, Eurostat and WHO's expenditure and non-expenditure health care statistics.⁴⁶¹

6.9.2 Good practice examples

As with evidence-based medicine, good practice examples and models provide a solid basis for the acceptance and implementation of HSPA across the board. This section provides an overview of such examples and models.

6.9.2.1 Case studies linking evidence with policy change

This sub-theme did not score highly since a new main theme, covering specific country experiences, has been added following the analysis of the participatory research stage of this thesis.

Most case studies of good practice examples emanate from collaboration at regional or international level. The ECHO team presented the project details at the third EG meeting in Brussels. The main messages coming through were how routinely collected data from hospitals, patient data, registries and surveys could be used for generating evidence on performance improvements. It also delved into the methodological difficulties in creating a homogenous knowledge infrastructure amongst participating hospitals and institutions and how to adjust for risk and population heterogeneity.⁴⁶²

The maturity model for integrated care is another prime example of a developing integrated care tool and sharing experiences in the Puglia region in Italy. A comprehensive model was devised for devising, implementing and assessing

⁴⁶⁰ 162 Ministry of Health and Social Affairs Sweden. 1st HSPA Meeting. Welcome. 2014.

⁴⁶¹ 174 Gaetan Lafortune. Health at a Glance, Europe 2014. 2nd HSPA Meeting. Feb 2015.

⁴⁶² 176 Grech K. Personal meeting notes. 3rd HSPA Meeting. Brussels. May 2015; pg. 1.

integrated care programmes in this region. It has since been taken up as a good practice model for other regions in Italy.⁴⁶³

6.9.2.2 Statements on use of HSPA to determine policy agenda

The Health Secretary of State in Sweden, in opening the second EG, emphasised the importance of performance measurement in informing policy to improve the health system.⁴⁶⁴ This, in itself, was not surprising given that Sweden was one of the first countries to adopt HSPA as a tool for performance assessment. In its fourth meeting, one speaker, in trying to emphasise the importance of performance assessment, quipped that one should get a *‘gorilla to advocate for the need and usefulness of an outcomes framework.’*⁴⁶⁵

6.9.3 Country experiences

One of the themes generated by the participatory research component of the thesis revolved around experiences from individual countries. As part of the author’s participation on the expert group, he encountered national HSPA experts and policy makers from these countries and obtained invaluable insight into their experience and opinions. This is important since one of the key objectives of the research was to obtain the viewpoints and feedback from countries which have introduced HSPA and their experience in linking this with policy making.

All 28-member states plus Norway and Switzerland participated in the proceedings of the Expert Group. These countries are at varying levels or stages of development in HSPA and some have gained more experience and are more mature into the process than some others, but a commonality is that all are striving, in one way or another, to integrate HSPA into their health systems.

As a prelude to this section, the following table (Table 6.1) is an outline of the status of these countries at the time of writing (late 2017).

⁴⁶³ 202 Francesca Avolio. Maturity Model for Scaling Up. 6th HSPA Meeting, April 2016.

⁴⁶⁴ 166 DG Sante – Minutes_2nd meeting of Expert Group on HSPA, 6 Feb. 2015. Stockholm; Pg. 1.

⁴⁶⁵ 182 Grech K. Personal meeting notes. 4th HSPA Meeting, Berlin. October 2015, Pg. 2.

Table 6.1: State of HSPA development of various countries

Countries	State of HSPA development
Bulgaria Denmark Czech Republic	Exploring possibilities for developing a national HSPA.
Cyprus	Improve their performance assessment systems but no national HSPA.
Italy Germany Spain	Federal approach towards performance assessment – several regional HSPAs with central oversight.
France Poland	Links performance assessment to commissioning, fiscal and quality incentives.
Austria Slovenia Latvia	In the process of developing national HSPA frameworks.
Belgium UK The Netherlands Sweden	Mature HSPA processes.
Malta Estonia Portugal Turkey Hungary	Recently developed HSPA frameworks linked to national reform process.

This section will only describe the HSPA models present in those countries which have not been extensively covered under other themes and sub-themes. Hence, the English, Italian, Dutch and Belgian systems will not be covered here as they have been amply mentioned under various other themes. The Maltese HSPA was also amply covered in the second part of this study.

6.9.3.1 Austria

The HSPA process began in 2010, where the Austrian Ministry of Health commissioned the Austrian Health Institute to compile a report on the performance of the Austrian health system.⁴⁶⁶ Subsequently, reforms in 2013,⁴⁶⁷ based on improving quality and access of health care, provided the context for their first national HSPA.

⁴⁶⁶ 239 Questionnaire Response – Austria. Peer Review on HSPA, Belgium 2014, pg. 1.

⁴⁶⁷ 193 Patrizia Theurer. Austrian HSPA-Initiatives. 6th HSPA Meeting. April 2016.

This synergy is common where HSPA either precedes or follows reforms, such as was the case in Portugal and Malta. In this case, the objective of the HSPA would be to monitor the progress of these reforms and in turn, the results of the assessment would supposedly encourage reforms to happen in the right direction.⁴⁶⁸

The proponents of Austria's HSPA have decried that it should be outcomes-based and serve as a *'tool to prioritize problematic fields in health care where further investigation seems to be necessary and bringing stakeholders in the position of informed decision making.'* It would certainly not be used as a name, blame and shame mechanism and would follow on international good practice examples, such as those of Belgium and the UK.⁴⁶⁹

These are common principles that are applicable to other HSAs. However, the Austrian expert participating in the peer review meeting in Slovenia disclosed that the implementation of the HSPA was stalled due to external factors.⁴⁷⁰ Nonetheless, despite this setback, Austria has implemented several initiatives such as the Austrian Inpatient Quality Indicators programme and the introduction of several quality registers.⁴⁷¹

6.9.3.2 Bulgaria

Bulgaria describes a rather rigid situation in terms of instituting reforms, changes in legislation and new fiscal mechanisms. Moreover, there are certain limitations in the ICT infrastructure. Nonetheless, they are studying the feasibility of developing a national HSPA framework.⁴⁷²

6.9.3.3 Croatia

Croatia launched its National Health Care Strategy to cover 2012-2020, based upon a 'health in all policies,' 'whole-of-government' and 'whole-of-society' approach, aimed at improving health care indicators and quality of health care. Several sets of

⁴⁶⁸ 192 Florian Bachner. Austrian HSPA Initiatives. 6th HSPA Meeting. April 2016.

⁴⁶⁹ 261 Grech K. Personal meeting notes. 6th HSPA Meeting and Seminar on Integrated Care. Rome. April 2016, pg. 1.

⁴⁷⁰ 229 Grech K. Slovenia seminar on HSPA and quality of care. Ljubljana. 28-29 Sept. 2016, Pg. 4.

⁴⁷¹ 254 Kernstock EM. HSPA – Austrian Initiatives. HSPA quality seminar. Ljubljana. Sept. 2016.

⁴⁷² 216 I. Schmidt. Results from a survey on integrated care in EU Member States. Aug 2016, Pg. 20.

indicators have been developed, however there is no move, as yet, towards a national HSPA.⁴⁷³

6.9.3.4 Cyprus

The lack of a public NHS mitigates against the development of an integrated performance assessment system. Furthermore, the lack of a robust ICT system in the public health care sector at national and regional level and the vertical division between public and private health care sector also present certain difficulties as does a management system in the public sector which is perceived to be very rigid.⁴⁷⁴

6.9.3.5 France

France has a national performance monitoring system linked to the measurement of quality of care, fiscal incentives to improve quality of care and the disbursement and allocation of funding to service providers. The performance system awards the ‘best in class’ or those institutions which show significant improvement. It is not, however, punitive, as it is believed that this would decrease the reporting of adverse events.⁴⁷⁵

The French system ranks over two hundred private and public hospitals using an elaborate performance system and publishes the results every year. This ranking primarily serves as an incentive for these providers to perform better since they are particularly sensitive to preserving a good reputation, which reputation is affected by the public disclosure of these results.⁴⁷⁶

6.9.3.6 Germany

Germany’s response to the survey preceding the peer review meeting in Brussels stated that *‘Germany does not apply a systematic HSPA approach ... Instead, Germany follows a pluralistic approach with various activities to monitor and report on health trends and health system performance’* of the status of the population’s health, its determinants and its health care services.⁴⁷⁷

⁴⁷³ 216 I. Schmidt. Results from a survey on integrated care in EU Member States. Aug 2016, Pg. 22.

⁴⁷⁴ 216 I. Schmidt. Results from a survey on integrated care in EU Member States. Aug 2016, Pg. 26.

⁴⁷⁵ 176 Grech K. Personal meeting notes. 3rd HSPA Meeting. Brussels. May 2015, pg. 1.

⁴⁷⁶ 177 DG Sante - Minutes – 3rd meeting of Expert Group on HSPA. May 2015. Brussels, pg 2.

⁴⁷⁷ 240 Questionnaire Response – Germany. Peer Review on HSPA, Belgium 2014, pg. 1.

Service provision is monitored through a similar quality assessment system as in France wherein regular benchmarking reports are produced and sent to each hospital for comparable purposes. A structured dialogue or peer review then ensues with each hospital to identify areas for improvement in those areas that are outside the tolerable range. This outcome data is published and was introduced consequent to the implementation of the DRG system in Germany.⁴⁷⁸ Although, unlike France, Germany is governed through a federalist approach, a centralised Federal Joint Committee controls the flow of information and supervises the performance assessment process, tasking a recently established Institute for Quality Assurance and Transparency in Health Care for this work.⁴⁷⁹

6.9.3.7 Greece

Following the 2008 recession, Greek authorities focused primarily upon developing financial, efficiency, productivity and economic indicators, in tune with the situation at the time. This eclipsed the possibility of adopting other health related indicators, although there have been developments as of late in generating indicators more akin to the health sector.⁴⁸⁰

6.9.3.8 Hungary

During the proceedings of the EG, Hungary was in the course of developing its HSPA. A directive was passed in 2013 and WHO was engaged to support the process.⁴⁸¹ During one of the expert meetings, the Hungarian expert outlined the methodology and plans for their first HSPA. At the time, they were discussing how to institutionalise HSPA into their organisational agenda whilst creating a policy dialogue with relevant internal stakeholders, although no other ministries or NGOs were involved. They were also exploring the possibility of integrating the HSPA into their legal framework which would decree that a report would be produced every two years. Their first HSPA was produced in late 2017, containing 90 indicators.⁴⁸²

⁴⁷⁸ 182 Grech K. Personal meeting notes. 4th HSPA Meeting. Berlin. October 2015, pg. 1.

⁴⁷⁹ 188 Thilo Grüning. Quality improvement through data. 4th HSPA Meeting. Oct 2015.

⁴⁸⁰ 259 DG Sante. Minutes of 7th HSPA Expert Group Meeting. 23 Sept. 2016.

⁴⁸¹ 173 Peter Mihalicza. Starting an institutionalized HSPA-the case of Hungary. 2nd HSPA Meeting. Feb 2015.

⁴⁸² 166 DG Sante – Minutes_2nd meeting of Expert Group on HSPA, 6 Feb. 2015. Stockholm, pg. 6.

6.9.3.9 Norway

National quality indicators are produced by the Norwegian National Quality Indicator System (NQIS) which was established in 2012 and is based on OECD's HCQI project.⁴⁸³ By 2015 over 97 national quality indicators were developed, covering somatic health, mental health, infections and primary care services. The main objective of this system is to provide performance related information to patients and users *'to safeguard their legal interests.'*⁴⁸⁴

6.9.3.10 Slovenia

The first attempt at performance measurement was a national project on quality indicators in 1999. Surprisingly, it was not the Ministry that took the lead but the Slovenian Medical Chamber. This then led to the introduction of health care quality indicators in 2010 by a multi-sectoral working group. More recently, Slovenia launched its National Healthcare Plan for 2016-2025. This plan incorporates the development of HSPA as one of its priorities.⁴⁸⁵

A current set consists of 72 indicators from several dimensions, such as quality (safety, patient centeredness, effectiveness and efficiency) and patient-oriented indicators, such as patient safety. However, there is a recognition that, since these indicators originated extraneous to a HSPA framework, the current model is weak and not robust enough to partner the national health plan.⁴⁸⁶ In fact, in 2017, the author was engaged, as an external expert, to support and guide the Slovenian Government in the development of their first HSPA.

6.9.3.11 Sweden

Sweden has a long history of HSPA. Its main thrust is the production of yearly thematic reports.⁴⁸⁷ These reports feature aspects of the whole Swedish health care system, for instance reporting on the quality and efficiency of the system, care of

⁴⁸³ 234 Norwegian National Quality Indicator System. Norwegian Directorate of Health. 2012; Pg. 2.

⁴⁸⁴ 234 Norwegian National Quality Indicator System. Norwegian Directorate of Health. 2012, Pg. 1.

⁴⁸⁵ 227 HSPA Expert Group. HSPA seminar discussion paper. Ljubljana, Slovenia. 28-29 Sept. 2016, pg. 1.

⁴⁸⁶ 253 Poldugrovac M. Quality Indicators in Slovenia, Problems and Objectives. HSPA quality seminar. Ljubljana. Sept. 2016.

⁴⁸⁷ 160 Grech K. Personal Meeting Notes on the 1st EU Expert Group Meeting held on the 10th November 2014, Brussels. 2014, pg. 2.

stroke, diabetes etc.⁴⁸⁸ In the EG meeting in Sweden, the State Secretary commented on the possible relationship between the long years of producing performance reports and policy making in Sweden. She was of the opinion that the practice of producing quality and performance reports led, over the years, to improved equity, patient centeredness and efficiency. The latter aspect was of particular relevance at a policy level due to rising costs in Sweden. However, she also admitted that one of the main benefits of the HSPA process was the inculcation of the concept of transparency into the Swedish health care system.⁴⁸⁹

6.9.3.12 Latvia

Latvia has a long history of data collection and analysis. However, the presence of multiple stakeholders has limited their ability to agree on a national performance framework. Nonetheless, in 2017, together with the *Scoula Superiore di Sant'Anna* (Pisa), the author was also engaged to assist in the development of their national HSPA over in the next few years.

6.10 Communication

The EG considered the best approaches and tools to communicate both HSPA as a concept and also the results emanating from HSPA methodology. This was considered an essential element of the HSPA process.

6.10.1 Communicating the evidence

A key element of the latter stages of the HSPA process is interpreting and then communicating the results to policy makers, management and even the public if necessary.

6.10.1.1 Expert group considerations

From the first EG meeting, the need for improved communications was discussed as well as the possibility of having a repository of HSAs of different EU member states that could serve as case studies of excellence and foci of knowledge transfer to policy

⁴⁸⁸ 161 DG Sante – Minutes_1st meeting of Expert Group on HSPA, 10 Nov. 2014. Brussels, Pg. 1.

⁴⁸⁹ 166 DG Sante – Minutes_2nd meeting of Expert Group on HSPA, 6 Feb. 2015. Stockholm, Pg. 2.

level.⁴⁹⁰ Various methods of visual reporting systems were discussed, such as Dartboard graphics,⁴⁹¹ where it was agreed that HSPA results should be published regularly, wherever possible.⁴⁹² However, issues of data protection and sensitivities around the public disclosure of political sensitive data presents difficulties and challenges in communicating HSPA results and in obtaining the required permission from participating countries and organisations. The EG weighed these considerations with the need to ensure transparency and accountability towards the public,⁴⁹³ although it was noted that some countries are reluctant to publish the results of the analysis of the performance of their health systems and hospitals.⁴⁹⁴

A part of the seventh EG meeting was specifically dedicated to the subject of communication. The members discussed in detail how HSPA results should be communicated, whilst understanding the need *‘to combine the simplicity of communication with the complexity of the analyses’* as a derivative of the HSPA process. The use of the media, social media, publications, websites, seminars and meetings were discussed, amongst other means. The two-way communication process that between researchers and policy makers, was reiterated again as an essential communication tactic.⁴⁹⁵

Both the Quality Sub-group and the review meeting in Slovenia also concluded that the method/s chosen for communicating HSPA results ultimately depends upon the initial goals of the HSPA. Hence, the communication strategy would be adjusted to the target group receiving the information,⁴⁹⁶ including service providers, funders, patients, policy makers, government and the general public.⁴⁹⁷ Scientific data and findings are aimed for scientists and professionals, whilst quality assessments and comparative data is usually communicated to policy makers.⁴⁹⁸

⁴⁹⁰ 160 Grech K. Personal Meeting Notes on the 1st EU Expert Group Meeting held on the 10th November 2014, Brussels. 2014, pg. 3.

⁴⁹¹ 166 DG Sante – Minutes_2nd meeting of Expert Group on HSPA, 6 Feb. 2015. Stockholm, Pg. 5.

⁴⁹² 177 DG Sante - Minutes – 3rd meeting of Expert Group on HSPA. May 2015. Brussels, pg. 2.

⁴⁹³ 182 Grech K. Personal meeting notes. 4th HSPA Meeting. Berlin. October 2015, pg. 2.

⁴⁹⁴ 183 DG Sante - Minutes – 4th meeting of Expert Group on HSPA, 9 October 2015. Berlin, pg. 4.

⁴⁹⁵ 252 Grech K. Personal Meeting Notes on the 7th HSPA Meeting. Brussels, 23 Sept. 2016, pg. 1.

⁴⁹⁶ 229 Grech K. Slovenia seminar on HSPA and quality of care. Ljubljana. 28-29 Sept. 2016, pg. 3.

⁴⁹⁷ 253 Poldugrovac M. Quality Indicators in Slovenia, Problems and Objectives. HSPA quality seminar. Ljubljana. Sept. 2016.

⁴⁹⁸ 217 Expert Group on HSPA. Strategies across Europe to assess quality of care. Mar 2016, Pg 3, 36.

Given the importance of this subject, the EG (with the contribution of the author) produced a Policy Paper entitled ‘HSPA – Reporting and Communicating; Practical Guide for Policy Makers,’⁴⁹⁹ dealing with communicating HSPA.

6.10.1.1.1 Country experiences

Many countries recounted their own experience in disclosing HSPA findings to the public. The Swedish authorities publish regular reports on regional comparisons and produce guidelines based on performance assessment findings. There are various reasons for instituting a formal public reporting system. It is primarily aimed at encouraging service improvements, certainly to improve transparency and stimulate public debate whilst allowing policy makers to interact with the public.⁵⁰⁰ Italy has devised an innovative means of visually depicting the results of their regional performance evaluation system, using target diagrams and dartboard graphics to showcase the achievements but also the gaps in performance and quality of care.⁵⁰¹

The IQTIG in Germany is a firm believer of public disclosure and insists on publication of results through its website.⁵⁰² Furthermore, all German hospitals are now required by law to publish quality reports every two years, outlining the results from the national quality assurance programme.⁵⁰³ Romania has tried to use the media as leverage to garner greater commitment from policy makers, through the increased involvement of the public. Hungary has also placed transparency and objectivity as important considerations for its first HSPA.⁵⁰⁴

Experiences from various countries show that there is a cyclical synergistic effect between the publication of performance indicators and the improvement of quality of care. This *‘positive impact is mainly determined by the effect of public reporting that ... generates significant effects on changes in efficiency and quality of care of health services.’*⁵⁰⁵

⁴⁹⁹ https://ec.europa.eu/health/sites/health/files/systems_performance_assessment/docs/2017_hspa_reportingcommunicating_en.pdf; accessed 27/10/17.

⁵⁰⁰ 169 Mona Heurgren. Public Reporting. 2nd HSPA Meeting. Feb. 2015.

⁵⁰¹ 172 Nuti S. The performance evaluation system – Tuscany and Italian Regions. 2nd HSPA Meeting. Feb 2015.

⁵⁰² 184 Christof Veit. Can we govern Health Care with Quality Data. 4th HSPA Meeting. Oct 2015.

⁵⁰³ 188 Thilo Grüning. Quality improvement through data. 4th HSPA Meeting. Oct 2015.

⁵⁰⁴ 252 Grech K. Personal Meeting Notes on the 7th HSPA Meeting. Brussels, 23 Sept 2016, pg. 1.

⁵⁰⁵ 217 Expert Group on HSPA. Strategies across Europe to assess quality of care. Mar. 2016, Pg. 16.

6.10.2 The media and evidence-based policy

The media was not high on the agenda on the EG or in any of the peer review and focus group meetings. The few references on the use of the media were mostly regarding the use of modern communication techniques such as the internet and social media. Many national and regional authorities, such as the A-IQI National Steering Committee in Austria⁵⁰⁶ and Portugal's Health Commission use the internet for communicating with the public. These are usually presented as web-based tools which the public can navigate to obtain information on the results produced by the HSPA process.^{507,508}

The issue of how the media can impact policy was raised in the peer review meeting in Slovenia, where it was explained how a newspaper report in Slovenia disclosed the ranking of hospitals on MRSA infection rates. Although this information was already available on the ministry's website, it was only after the newspaper report was published did it create an outcry and a public reaction. This example showed the power of the media in influencing the public's perception, and by collusion, the policy maker's opinion.⁵⁰⁹

Indeed the media could be considered as a stimulus for policy change. As postulated by Kingdon, a window of opportunity may be created by the media, where the media may sway the public, which in turn places pressure upon policy makers to effect change.

6.11 Further work

The work of the EG is still on-going. As it tackled the performance assessment of quality of care and integrated care in its first two years, other important themes were discussed for which the author is still contributing. These included the performance assessment of primary care, efficiency and resilience.

⁵⁰⁶ www.kliniksuche.at; accessed 21/05/16.

⁵⁰⁷ 193 Patrizia Theurer. Austrian HSPA-Initiatives. 6th HSPA Meeting. April 2016.

⁵⁰⁸ 243 Questionnaire Response – Portugal. Peer Review on HSPA, Belgium 2014, pg. 7.

⁵⁰⁹ 229 Grech K. Slovenia seminar on HSPA and quality of care. Ljubljana. 28-29 Sept. 2016, Pg. 2.

6.11.1 Recommendations

The EG reached several conclusions along its path. Whilst it is not the purpose of this analysis to list these in any great detail, this next section will outline the more salient points that have been concluded.⁵¹⁰

- Whilst HSPA provides a high-level balanced overview on the performance of a health system, more detailed analysis is always required to assess the performance of its component parts. HSPA reports should provide a global evaluation rather than be used for the comprehensive monitoring of programmes.
- The dimensions pertaining to a HSPA model, such as quality, access, equity, sustainability and efficiency, should reflect the values that the health system wishes to pursue.
- HSPA should assess the whole health system, including acute, and also chronic and mental care, hospital (residential) care, primary and community care, public health and health promotion and also health in all policies.
- The set of indicators should be comprehensive and elaborated enough to assess the system as a whole.
- A HSPA report should generate concrete recommendations which should be translated into action(s).
- An adequate governance structure for the development, analysis and implementation of HSPA needs to be in place.⁵¹¹
- Many aspects of HSPA model require further development, such as:

⁵¹⁰ 191 Pascal Meeus. Performance of the Belgian Health System – Report 2015. 6th HSPA Meeting. April 2016.

⁵¹¹ 250 Meeus P. HSPA Belgium.... And so what? Peer Review meeting. Brussels. May 2014.

- Development of more elaborate dimensions.
- Better more robust methods to improve data collection.
- Expound upon suitable indicators for under-developed areas such as primary care, mental care, chronic care, end of life care, integrated care.
- Link indicators to concrete themes.⁵¹²
- Improve international comparative assessment methods and benchmarking.
- Draw on multiple sources to draw conclusions and develop policy.

Finally, there was a suggestion, that following on the work of the HSPA Expert Group, an EU-HSPA network could be created, to continue this valuable work and possibly as a prelude to an EU wide HSPA model in the future.

6.12 Conclusion

This chapter presented the author's research and work as part of his participation on the EG. It continued to explore the themes generated through the document analysis and generated new themes by providing a unique, qualitative perspective on HSPA and its implementation across Europe and beyond.

The next chapter presents a general high level discussion incorporating the main highlights of the thesis and rounding up the main arguments and findings of the three phases of this study.

⁵¹² 222 Grech K. Karanikolos M. Nolte E. Quality Policy Focus Group Meeting notes. Brussels. 3 Nov. 2015, pg. 4.

CHAPTER 7

GENERAL DISCUSSION

“Facts are stubborn things, but statistics are pliable.”

Mark Twain

CHAPTER 7

GENERAL DISCUSSION

7.1 Introduction

Given the qualitative methodology adopted for the greater part of this study, the discussion points covering the results of Chapters 4 and 6 (Phase I and III of study) have already been expounded in these chapters. This chapter, on the other hand, serves to augment the discussion that has already taken place whilst reflecting upon the original research questions of the study as our point of reference.

In the first instance, an appreciation of what HSPA, as a relatively new discipline, has achieved to date would be volunteered, as well as offering some predictions of what's in store in the future. The first research question is then discussed. This concerns the methodological development of Malta's first HSPA, enquiring as to the most appropriate method for developing a health system performance assessment model for a small state like Malta as well as the results of this process. The second research question delved into the relationship between HSPA and policy development. This phenomenon is further elaborated upon and a model capturing the findings of this second part of the study is proposed to provide a deeper understanding of this complex field of study. A commentary on the methods adopted for this study followed by a discussion on the gaps in the evidence that have been addressed by this research continues. A critique of the study in terms of the techniques employed to assure a quality approach concludes this chapter.

7.2 The advent and endurance of HSPA

Performance assessment has a long-standing tradition in many sectors, including health (Veillard, et al., 2005). Whilst several performance tools have been developed and are available at an organisational or institutional level, the need to measure the performance of health systems at national (and regional) level arose following the global 2008 financial crisis. HSPA grew out of the necessity to organise performance

assessment better and to provide information on the performance of the components of a health system. It is important to distinguish performance assessment methods at organisational level, (say hospitals, primary care centres etc) as against HSPA as a method of assessment at health system (usually national or regional) level. Whilst the underlying model for both hospital performance and HSPA could be traced back to the health determinants model (Arah *et al.* (2006), hospital performance measurement models subscribe to theoretical frameworks based on the narrower definition of clinical care as it is linked to the health needs of the population that the hospital serves. Indeed, Veillard and colleagues, in the PATH project, proposed a hospital framework consisting of 6 clinical dimensions, including clinical effectiveness, efficiency, staff orientation, responsiveness governance, patient safety and patient centredness (Veillard, et al., 2005).

Sicotte and collaborators from Canada proposed using Parsons' social system action theory as a theoretical framework to explain health care organisational performance, based on Parson's four fundamental functions to ensure an organisation's resilience – adaptation, goal attainment, integration and latency (Sicotte, et al., 1998). On the other hand, health system performance assessment encompasses the wider definition of health and its determinants, where it subscribes to a broader, societal or public health viewpoint. Moreover, given that HSPA is a more recent phenomenon, other models such as the Logic Framework Model (Canadian Institute for Health Information, 2013), WHO's Results Based model (World Health Organisation, 2010) and OECD's Quality Framework (Arah, et al., 2006) have been proposed and used as a basis for HSPA development.

Since HSPA is a relatively recent addition to the performance assessment toolkit, the author feels that it has not yet passed the test of time and its longevity is still debatable. However, most proponents believe that it is, up to now, the best method to assess performance at national or regional level and that given time, it would be incorporated within the legal and organisational framework of a country. Others are not so optimistic (Giedroń, 2016).

7.2.1 The end of the beginning or the beginning of the end?

2018 marks the tenth anniversary of the Tallinn Charter (World Health Organisation, Regional Office for Europe, 2008). It is acknowledged that, whilst the ‘birth’ of performance assessment is attributed to the launch of WHO’s World Health Report in 2000, the Tallinn Charter is certainly credited with its ‘baptism.’ HSPA has therefore had the good part of a decade to develop and mature.

This study has provided a detailed overview of the development and utilisation of HSPA across the European region over the past few years. Although its usefulness has been well established through numerous case studies and good practice examples (Carinci, *et al.*, 2015); (El Turabi, *et al.*, 2011); (Chalmers, *et al.*, 2017), and in spite of the author’s emersion into the HSPA paradigm locally and in Europe for over four years, the author feels that it is still uncertain whether HSPA would develop into a permanent feature on the performance landscape.

Unlike other more mature technology assessment tools such as HTA⁵¹³, only a few countries have incorporated HSPA into their legal framework (Van Den Berg, *et al.*, 2014), thus relying on the voluntary uptake of this relatively new mechanism into their governance system.⁵¹⁴ Local, national and EU legal instruments need to be enacted to add permanence and significance to HSPA. If not, then its short but active life may expire before it could have a lasting effect on health systems.

7.2.2 Value added or a nice to have?

HSPA ‘competes’ amongst a plethora of other performance measuring tools and data collecting systems. The author has commented, on several occasions, on the numerous performance methods in place at national, European and international level. These include WHO’s HFA database (World Health Organization, 2012) and OECD’s HCQI project (Rotar, *et al.*, 2016). CION also has several data collection and comparative systems in place, including ECHI, DG ECFIN’s indicator set, JAFH (SPC), Eurostat, the System of Health Accounts, the Economic Policy Committee, SILC, EHIS, the

⁵¹³ https://ec.europa.eu/health/sites/health/files/technology_assessment/docs/impl_dec_hta_network_en.pdf (accessed 04/0918)

⁵¹⁴ 102 Lavis, JN. *et al.* Bridging the worlds of research & policy in European health systems. EOHSP. 2014. Chapter 6. Pg. 9.

European system of integrated social protection statistics (ESSPROS), Heidi, Euroreach and ECHO, to mention but a few.^{515,516}

Policy makers and funders have therefore asked what added value does HSPA provide, or in other words, does HSPA provide a viewpoint which is different or unique to the other assessment methodologies? The EG pondered this matter many a time and in its meeting on 18th September 2017⁵¹⁷, concluded that what distinguishes HSPA from other methods is its ability to provide an umbrella assessment or helicopter view of how a health system performs. Whilst many view this positively (Giedrojc, 2016), others argue that this reflects a superficial viewpoint, with little or no value added to the performance paradigm (Hyder, 2002); (Tashobya, *et al.*, 2014). They argue that whilst it may be ideally placed to identify the gaps in performance and set direction for policy makers, due to its overarching nature and irregularity, it is not geared towards constant monitoring of the performance of the component parts of a health system or service and hence loses its significance and relevance. Perhaps the fact that this debate should occur in the first place is a reflection of its limitations, but until a better more acceptable alternative comes along, it is primed to improve in terms of the methods employed and its results.

7.2.3 The European project

HSPA is primarily a European brainchild, if one were to put aside the efforts of the US, Canada and Australia. However, ownership at European level has been meagre at best, disjointed at most. Whilst the response towards HSPA by individual member states has been enthusiastic and CION has invested considerable time and effort in devising methodologies for the development and implementation of HSPA across the EU, harmonisation and standardisation of this relatively novel approach is lacking, where Perić, Hofmarcher-Holzhacker and Simon (2017, p. 1) found that *'the EU HSPA landscape is complex with seemingly few streamlining activities.'* There has been much debate within EU circles, including that of the EG, on whether there should be greater integration of HSPA into the European project. This conundrum was already

⁵¹⁵ 161 DG Sante_Minutes, 1st meeting of Expert Group on HSPA, 10 Nov. 2014. Brussels, Pgs. 4-5.

⁵¹⁶ 160 Grech K. Personal Meeting Notes on the 1st EU Expert Group Meeting held on the 10th November 2014, Brussels. 2014, pg. 3.

⁵¹⁷ Grech K. Personal notes from 11th HSPA Committee Meeting, Brussels, 18 Sept. 2017.

apparent at the author's first peer review meeting in 2014 where the EU claimed, at the time, that:

*... although there is no claimed plan or drive to create an EU wide common HSPA framework the focus is to increase Member States' impetus in this respect and ensure a certain level of consistency and standardisation so as to facilitate greater comparability.*⁵¹⁸

The author can verify that, from his participation in various HSPA fora, this has been partially achieved, but more needs to be done. Of course, in Europe, WHO and OECD have also been very active on this front, through practical means of supporting member states to develop their own HSPA model (World Health Organisation, 2010), as well as facilitate cross national and international comparative assessment processes (Organisation for Economic Cooperation and Development, 2017).

The author believes that once more European countries adopt this methodology, it would probably gain sufficient momentum and achieve sufficient critical mass to ensure its long-term presence on the performance landscape.

7.3 The first research question - the methods behind the development of HSPA and the Malta model

The first research question dealt with the methodological development of HSPA, both in terms of finding the most appropriate method and model for Malta, but also in terms of how this method can be applied to similar member states in terms of size and maturity. Indeed, one of the two main objectives of this thesis was to discuss the various methodologies employed to develop HSPA frameworks. As with all valid tools, a robust and scientifically driven methodology is essential to ensure the durability and relevance of HSPA.

Facets of the various methods retained in the creation of numerous HSPA models and frameworks have been discussed widely, first as part of the initial literature search (Kelley, Arispe & Holmes (2006); (Carinci, et al., 2015); (Prinja, et al., 2017) but more importantly as part of the authors original research into the topic.

⁵¹⁸ 238 Grech K. Peer Review_Social Protection Committee. HSPA Brussels, 19-20 May 2014 Pg. 1.

The document analysis uncovered several instances and examples of model construction^{519,520,521}, although the author also noted that only few of these processes were actually documented in the scientific literature^{522,523}. In fact, the little information available on the details of the methods used in developing HSPA models was gleaned from the grey literature, which confirmed the usefulness of carrying out a document analysis at the start of the research process (Grech & Spurgeon, 2018).

7.3.1 The Malta model

The method for arriving at the Malta model was never used before. There was no precursor or precedent. Together with the NEWG, the author had searched for potential methods that would conform to Malta's particular needs, that of a small island nation with a bespoke, mature, yet complete health system with constraints. Various methods were studied (Tashakkori & Creswell, 2007), (Perić, *et al.*, 2017) but none fitted into our needs. Hence, the author opted to develop a new method with the backing and comfort of the NEWG. The process was well described in Chapter 5 and the steps taken are illustrated in Appendix 2b.

WHO had drawn up a set of criteria for the development of HSPA by its member states (World Health Organization, 2012). This includes focusing upon health systems as a whole, the utilisation of outcome measures as much as possible, incorporation into the performance management and policy making process of the country, and that each country should develop its own HSPA, although it should still be comparable with other countries and health systems. The NEWG reviewed these criteria and whilst it agreed with the whole system approach, it felt that the model should include all three types of indicators as ascribed by Donabedian (input, process and output indicators) (Donabedian, 1980a). Indeed, the moulding of a theoretical model on which to build Malta's HSPA was an important first step, although not everyone could understand why choosing an archetype was an important consideration and laid the basis to map the indicators onto the model. WHO felt that each country should develop its own

⁵¹⁹ 134 DOH (UK). The NHS Outcomes Framework 2012-13. 2011

⁵²⁰ 150 WHO (Europe). Armenia Health System Performance Assessment, 2009. 2009

⁵²¹ 152 WHO (Europe). Georgia Health System Performance Assessment, 2009. 2010

⁵²² 6 Smith, PC. *et al.* Performance Measurement for Health System 2009.

⁵²³ 154 van den Berg M *et al.* The Dutch health care performance report. Health Research Policy & Systems 2014; pg. 3.

HSPA model through a bespoke developmental methodology (World Health Organisation, 2010). Whilst this is understandable in terms of inserting HSPA into the local cultural and socio-political context of the health system it is measuring, the downside of this suggestion is the lack of a standardised empirically tested method, leading to serious difficulties for comparing methods and results. One of the key objectives of the first phase of this research was indeed to develop a method that would be documented in detail and tested, with the possibility of replication in other health systems. This was achieved, also to the extent that considerable interest was generated by other nations in their quest to develop their own HSPA.

One of the innovative steps undertaken in this method was to ‘extract’ indicators from existing national or regional strategies. There are advantages and drawbacks of using locally derived indicators and these have been clearly discussed in Chapter 5. However, as far as the author could ascertain, the ‘mining’ of indicators from strategies or policies that already exist was never attempted before and represents a robust yet achievable method for those HSPA proponents who decide to utilise local indicators rather than internationally derived ones. The condition for this is that such national or similar strategies or policies need to be available and accessible (Expert Group on Health Systems Performance Assessment, 2017). However, if done properly, this process lends credence and relevance to the indicators chosen to populate the HSPA model since these would already be considered meaningful for their health system.

A formula based on the RAND criteria was developed to score and hence shortlist indicators (Farley, et al., 2008). This algorithm was developed de novo by the author as a means to simplify the process of scoring and shortlisting indicators. The raters found the scoring method easy to follow and comprehend and was applied fairly smoothly. Definitions for each criterion was produced to ensure a standardised approach and the iterative steps allowed for scoring large numbers of indicators. This method was repeated by Slovene colleagues where over 1500 indicators were scored and shortlisted using this algorithm (Poldrugovac, et al., 2018).

Another matter considered by the NEWG was whether to score or rate the domains. Whilst the core function of any HSPA model is to demonstrate how a health system is performing, primarily through its organisation and manifestation of its indicators

(Arah, et al., 2003), the NEWG also discussed the usefulness and benefit of also showing how the domains performed in their own right. The purpose of this was to help Maltese policy makers focus on specific aspects (or domains) of the health system, in the hope that such targeted action would spur change, reform and improvement. The difficulty of this step in the HSPA development process was how to establish a scoring metrics that is simple to implement and understand yet retains accuracy and validity. Similar metrics were studied such as those adopted by Belgium and Italy (Vrijens, et al., 2016), (Nuti, et al., 2013).

A scoring system was devised that would score and weight each indicator whilst also provided an overall score for the domain. This allowed an immediate visual representation of the performance of the Maltese health system through a traffic light system which was highly appreciated and also accepted by policy makers and the public (Grech, 2015). The downside of this approach was the risk of oversimplifying what is essentially a complex story and hence misrepresent the real message that HSPA is purported to convey.

7.3.2 The Malta experience

The objectives of the second phase of this dissertation have been reached through the development of Malta's first HSPA and national set of key national performance indicators as well as producing the results of Malta's first performance assessment of its health system. Malta was not one of the earlier adopters of HSPA, but this allowed us to assume certain best practices whilst adapting them to our needs.

Malta's first HSPA was developed following the creation of Malta's National Health System Strategy (NHSS) as a means to monitor its implementation. This was the first ever opportunity to introduce a tool to assess our health system performance and to enhance and consolidate transparency and accountability in the decision-making process in Malta. It was intended to instil drive within local stakeholders to strive to improve the performance of the Maltese health system.

The jury is still out on whether these objectives have been reached as the author feels that, whilst it was a very useful national exercise, the real value of HSPA is yet to be

grasped and owned locally. This is not surprising since other countries also reported similar initial reactions to their HSPA.^{524,525}

It was felt that the results of the HSPA faithfully reflected the performance of Malta's health system at the time. In truth, the results did not come as a surprise since they mirrored what we, as health service leaders, already knew or suspected. If this were not the case, then either we were working in the dark for many years or the methodology adopted for our HSPA was not appropriate for Malta.

None of the dimensions were classified at the extreme ends of the spectrum (Very Good or Very Poor). Three dimensions (Determinants of Health, Efficiency and Resources) were classified as 'Poor', whilst four dimensions (Financing, Quality, Access and Health Status) were deemed to be 'Fair.' One dimension (Responsiveness) scored above average.

Predictably, 'Determinants of Health' indicators had a poor outlook due to the proportion of overweight and obese people, the relatively low physical exercise rates and also binge drinking which was found to be relatively high and is getting worse. As we already knew, 'Efficiency' was also not our *forte* (Azzopardi Muscat, et al., 2017).

Whilst average length of stay was doing well, low day case surgery rates, coupled with high bed occupancy rates and low surgical throughput still places increasing demand upon acute in-patient services and 'slows' the whole health service down, Malta being a small country depends upon its one main acute general hospital. However, on a positive note, these bottlenecks have since started to be addressed. The lack of resources remains one of the main challenges for the health service in Malta. Bed capacity and the lack of adequate human resources in critical areas of the service remains a persistent structural challenge which needs to be tackled in the long term.

⁵²⁴ 191 Pascal Meeus. Performance of the Belgian Health System – Report 2015. 6th HSPA Meeting. April 2016.

⁵²⁵ 257 Schmidt I. HSPA and Public Reporting in Sweden. HSPA quality seminar. Ljubljana. Sept. 2016.

It was not possible to classify the dimension for Stewardship due to lack of data. This presented the working group with a dilemma. Whilst we understood the critical importance of the dimension reflecting stewardship, and hence leadership, proper allocation of resources, proper governance etc, we had no indicators to show for it. There were those who preferred to omit this dimension rather than concede that we did not have indicators to measure this. On the other hand, others (including the author of this study) felt that it should be included precisely to show that this is fundamental and that we should develop the indicators to measure it. This was more relevant given the prevailing political situation in Malta, where the government of the day was being pilloried for lack of proper governance, alleged corrupt practices and lowering of standards in the public service.^{526,527}

Three years have elapsed since the HSPA report was first launched. Government and other stakeholders did take heed of some elements of this report. Examples are the drawing up of national policies on diabetes and rare diseases, legislating to favour physical education and healthy balanced diets for a healthy lifestyle⁵²⁸ and tackling specific indicators which performed poorly such as ‘Incidence rate of TB, and multi drug resistant notification rate,’ ‘Standardised Breast Cancer Incidence Rates,’ and ‘Hip fracture surgery initiated within 2 calendar days after admission to Mater Dei Hospital.’ It is this author’s view that more still needs to be done to imbue performance assessment into the decision-making process. Perhaps, the second iteration of Malta’s HSPA, which is due in 2018, would make inroads into inculcating a new ethos on performance assessment.

7.3.3 A shared HSPA methodology and model?

It became apparent that, whilst different jurisdictions and countries employ diverse methods in developing their HSPA model, these methods still share a common basis. The exchange of modelling methods and data has created a collective understanding of HSPA, allowing for harmonisation of definitions, domains and indicators across

⁵²⁶ <https://www.timesofmalta.com/articles/view/20160813/editorial/Panama-Papers-probe-update.621832>; accessed 24/09/17.

⁵²⁷ <https://www.timesofmalta.com/articles/view/20150412/letters/Government-sleaze.563577>; accessed 24/09/17.

⁵²⁸ Chapter 550. Healthy Lifestyle Promotion and care of Non-communicable Diseases Act – <http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=12449&l=1>; accessed 24/09/17.

health systems. Whilst this was facilitated by the HSPA EG, a common HSPA methodology was not pursued.

Of more relevance was the EG's reticence to create a common European HSPA model. This was not due to a lack of enthusiasm or capability but because it lacked the mandate, in line with the EU's Treaties which declare that Health falls under the responsibility of individual member states. However, this conflicts with the instructions given to EU Health Commissioner Andruikaitis to '*develop expertise on performance assessments of health systems ...*'⁵²⁹ Hence, a common European wide HSPA model is not on the cards any time soon. However, on the positive side, the EU, WHO and OECD are slowly converging onto a common European standard dataset through the production of the Health at a Glance report.⁵³⁰ This, after the realisation that these three international organisations request very similar performance information from their member states and rather than produce three separate data sets, a common performance assessment framework would be more valuable and effective.

7.3.4 Policy vs science

This research considered, in detail, the dynamics between creating a HSPA model which is scientifically robust but which, contemporaneously, retains political relevance. The methods adopted have passed the test of time and several techniques now exist to test models for reliability and validity (Carinci, et al., 2015). However, experience from member states has shown that scientific robustness is not enough. HSPA frameworks align themselves to the policy imperatives of the health system they are supposed to assess and as such, need to reflect the priorities set out by policy makers and politicians.⁵³¹ This sometimes blurs the demarcation between scientific rigour and political exigencies. If the two concur, then this wouldn't present any difficulties but sometimes these two realities are at odds, which creates a strain between the researcher/scientist and the policy maker.

⁵²⁹ 194 Maria Hofmarcher-Holzhacker. Indicator landscape for monitoring HSP. 6th HSPA Meeting. April 2016; Slide 8.

⁵³⁰ 4 Working Party on Public Health at Senior Level - Report by sub-group 5: Health investments. 2013. Pg. 14.

⁵³¹ 184 Christof Veit. Can we govern Health Care with Quality Data. 4th HSPA Meeting. Oct 2015.

The distance between the technical and political aspects of the HSPA process usually determines the outcome of this tug of war. The greater the distance, the less influence the policy maker exerts. This creates a palpable dilemma for exponents of HSPA, one where a balance between scientific robustness and policy ‘closeness’ needs to be carefully maintained.

More mature systems seem to handle this predicament better,^{532,533,534} whilst for those less experienced at HSPA, as was the case for Malta, this impacted upon the final set of indicators in the model.⁵³⁵ Indeed, the Malta HSPA process was significantly influenced by domestic and foreign policy considerations in the selection of its final set of indicators.

7.4 The second research question - the policy conundrum

This research sought to understand the relationship that HSPA has with policy development, with the aim of steering policy based on evidence rather than conjecture or other extraneous factors. This was the basis for the second research question and shall be discussed hereunder.

7.4.1 Understanding the policy (political) process in health

Up to the turn of the millennium, health policies were primarily the domain of the health sector. This statement seems superfluous. However, the 2008 financial crisis changed the face of many sectors including health and, due to the advent of greater transparency and accountability, an increased emphasis on efficiency and value added and the need to sustain health systems with ever increasing costs, health policy was suddenly catapulted into mainstream politics (de Leeuw, Clavier & Breton (2014). This also inevitably led to the rise of performance assessment and HSPA over the past decade.⁵³⁶

⁵³² 247 Smith PC. Comparison of national approaches to HSPA. Peer Review meeting. Brussels. May 2014.

⁵³³ 178 Michael van den Berg. The Dutch Health Care Performance Report. 3rd HSPA Meeting. Brussels. May 2015.

⁵³⁴ 172 Nuti S. The performance evaluation system – Tuscany and Italian Regions. 2nd HSPA Meeting. Feb 2015.

⁵³⁵ 228 Grech K. The challenges of developing and implementing a HSPA Framework - a small state perspective. Sept. 2016.

⁵³⁶ 165 Nolte E. HSPA - Goals, tools and state of the art. 1st HSPA Meeting. Nov 2014.

The literature and document analysis presented many policy models (Warner & Bjarkman, 2011). The Kingdon's multi-stream or non-linear policy framework seeks alignment between the problem, potential policy solutions and the political will or commitment to effect change (Cairney & Jones, 2016). This creates a 'window of opportunity' that 'shakes' policy into action.^{537,538} However, most models have difficulty in capturing the complexity that is policy making, where innumerable non-evidentiary factors are involved. This non-linear connection confounds the policy process, removing rationality from the equation.⁵³⁹ This mitigates against an evidence-based or performance-driven policy making process since these are based upon rational scientific reasoning, which is why the evidence generated through the performance assessment process is *'often contested, and viewed differently by different actors at different stages in policy development.'*⁵⁴⁰

We have seen, in fact, that evidence-based policy utilises more of an 'incremental, contingency or contextual approach,' with evidence in a supplementing role rather than taking the lead.⁵⁴¹ This is also the view of Cairney and Oliver (2017) in their recent discussion of evidence-based medicine versus evidence-policy making.

It is important to understand and indeed wise to accept the above as a given. Although the author occupied several senior national and international management and policy roles (and thus should have understood the political intricacies of health policy making), throughout this study he still struggled with the realisation that evidence in the form of performance assessment was not the prime (or only) mover in devising policy on the national or international stage.

7.4.2 The policy cycle

This leads to a discussion on the policy cycle, i.e. the relationship between evidence and policy making. We have already seen that this is a tenuous link which requires careful consideration and time to mature. A more pragmatic and realistic approach

⁵³⁷ 14 Leppo, K. *et al.* Health in All Policies. 2013; pg. 16.

⁵³⁸ 11 Mackenbach JP, McKee, M. Successes & Failures of Health Policy in Europe. 2013; pg. 320.

⁵³⁹ 94 Green A., Bennett S. Sound choices-enhancing capacity for evidence-informed health policy. WHO. 2007. Pg. 39.

⁵⁴⁰ 94 Green A., Bennett S. Sound choices-enhancing capacity for evidence-informed health

⁵⁴¹ 132 Rosen, B. *et al.* The Fourth International Jerusalem Conference on Health Policy 2009 Pg 258.

needs to be taken to consolidate this relationship, where political priorities are aligned, as much as possible, with the scientific needs of the researcher, rather than relying solely upon the application of rigorous scientific methods.⁵⁴²

Several examples of the application of the policy cycle have been cited, from the Dutch HSPA process (Van Den Berg, et al., 2014) to the Canadian model of policy making (Canadian Institute for Health Information, 2013). Some countries, such as Portugal and Slovenia, commented how HSPA has been instrumental in providing an evidence base for their respective national health and reform plans.^{543,544} Also, the Expert Group acknowledged how HSPA and health reforms were intricately linked, with many jurisdictions incorporated HSPA into their reform process. However, experience from other countries, such as Austria and Malta have shown that HSPA needs to be ‘*embedded more deeply in the policy making process.*’⁵⁴⁵ Many countries reported a ‘*common challenge in linking HSPA reporting to policy action*’⁵⁴⁶ and note a reluctance on the part of governments to ‘institutionalise’ HSPA into their policy making bodies and mechanisms.^{547,548} Hence, in summary, a mixed picture is drawn, where there have been instances where HSPA was incorporated into the policy cycle but it is still not extensively utilised to gauge whether HSPA will become a sustainable and long-term proposition.

7.4.3 Good practice examples and country experiences

As part of the process in collecting evidence on the link between HSPA and policy making, good practice examples and country experiences were sought from the literature and the document analysis. This was augmented by the evidence collected from the EG’s work. The author noted that there were numerous references on how HSPA could and should affect policy. This theme was ever present in many of the discussions in the EG and in the various meetings the author organised or participated in.

⁵⁴² 259 DG Sante. Minutes of 7th HSPA Expert Group Meeting. 23 Sept. 2016, Pg. 3.

⁵⁴³ 243 Questionnaire Response – Portugal. Peer Review on HSPA, Belgium 2014, Pg. 1.

⁵⁴⁴ 229 Grech K. Slovenia seminar on HSPA and quality of care. Ljubljana. 28-29 Sept. 2016, Pg. 1.

⁵⁴⁵ 239 Questionnaire Response – Austria. Peer Review on HSPA, Belgium 2014, Pg 4.

⁵⁴⁶ 217 Expert Group on HSPA. Strategies across Europe to assess quality of care. Mar 2016, Pg. 11.

⁵⁴⁷ 234 Norwegian National Quality Indicator System. Norwegian Directorate of Health. 2012, Pg. 1.

⁵⁴⁸ 243 Questionnaire Response – Portugal. Peer Review on HSPA, Belgium 2014, Pg. 8.

Indeed, informing policy through HSPA was a common objective of most HSPA reports. Examples from the Bridge and ECHO projects showed that knowledge brokering was an effective way of ensuring evidence links to policy making⁵⁴⁹ and routinely collected data is a minefield for generating evidence on performance improvements.⁵⁵⁰

Several years of experience in developing their HSPA served the Belgian KCE and the Dutch HSPA well in consolidated HSPA as their nations' foremost mechanism for national health policy making.⁵⁵¹ Italy's devolved yet coordinated response to performance assessment is a flag bearer to how performance assessment results should be communicated. Their Performance Evaluation Programme resulting in significant improvements in population health and quality of life.⁵⁵² Sweden also had the opportunity to develop a sophisticated performance assessment system over time and routinely produces regional and national policy reports based on the evidence gathered⁵⁵³. As with some other countries, due to extraneous factors, the Austrian HSPA process has been put on hold (unofficially).⁵⁵⁴ Nonetheless, Austria has in place a well-developed performance system shared with Germany and Switzerland on measuring inpatient quality indicators for service improvement.⁵⁵⁵ During the author's involvement on the EG, Hungary was in the course of developing its HSPA. This was completed in 2017 covering the period 2013-2015, following a legal directive that was passed in 2013.⁵⁵⁶

Despite these good practice examples and country experiences, the concrete, practical and real-life application of HSPA in policy making still seems to be wanting. This is in contrast with evidence-based medical practice which is now considered an integral part of safe and quality clinical practice.

⁵⁴⁹ 104 Lavis, JN., *et al.* Bridge Series – Policy Summary 8. Learning from one another. 2013. Pg. V.

⁵⁵⁰ 176 Grech K. Personal meeting notes. 3rd HSPA Meeting. Brussels. May 2015; Pg. 1.

⁵⁵¹ 102 Lavis, JN., *et al.* Bridging the worlds of research & policy in European health systems. EOHSP.2014. Chapter 6, Pg. 3.

⁵⁵² 84 OECD. OECD Reviews of Health Care Quality-Italy 2014-Raising Standards. 2014. Pg.114.

⁵⁵³ 166 DG Sante – Minutes_2nd meeting of Expert Group on HSPA, 6 Feb. 2015. Stockholm; Pg. 1.

⁵⁵⁴ 229 Grech K. Slovenia seminar on HSPA and quality of care. Ljubljana. 28-29 Sept. 2016, Pg. 4.

⁵⁵⁵ 254 Kernstock EM. HSPA – Austrian Initiatives. HSPA quality seminar. Ljubljana. Sept. 2016.

⁵⁵⁶ 173 Peter Mihalicza. Starting an institutionalized HSPA-the case of Hungary. 2nd HSPA Meeting. Feb 2015.

Rechel and McKee (2014) were of the same opinion, admitting that implementation of HSPA driven policies are still lacking.⁵⁵⁷ The reasons for this are varied and have been covered extensively. This author believes that, as is the case for most methods and treatments, more time is required to generate a portfolio of case studies demonstrating the impact that HSPA has on policy development and reform.

7.4.4 Comparative performance assessment

Comparative performance assessment is worth a special mention as part of this discussion due to its significant impact as ‘*one of the most powerful drivers of health systems improvement by influencing policy-makers.*’⁵⁵⁸ This method is viewed as the foremost and most effective tool in directing policy and influencing policy makers as regional, national and international comparisons of HSPA generated data are now considered key to policy development (Carinci, et al., 2015).

Efficient data collection and analytical techniques and extensive communication networks have facilitated, if not spurred, international and regional comparative assessment methodologies, such as those applied by the ECHO, ERAnet and EUnetHTA projects.^{559,560} CION, WHO and OECD have joined ranks in advocating for data harmonisation and sharing as enablers of comparative performance assessment⁵⁶¹ and are now actively considering consolidating their respective datasets to create a seamless and shared compendium of performance evidence.

These techniques are, however, mired in difficulties and technical, technological, bureaucratic, political and cultural challenges need to be overcome to truly offer a platform for sharing evidence across the data landscape. Moreover, comparative assessment methods are viewed both favourably and ominously by politicians, depending on which side of the fence they are sitting on.

⁵⁵⁷ 125 Rechel, B., McKee M. (Eds). Facets of Public Health in Europe. EOHSP. 2014. Pg. xxii.

⁵⁵⁸ 12 Papanicolas, I, Smith, PC. Health System Performance Comparison. 2013; page ix.

⁵⁵⁹ 10 Garrido, MV, *et al.* Health Technology Assessment and Health Policy Making in Europe. 2008. Pg. 28.

⁵⁶⁰ 90 Bernal Delgado E. ECHO Presentation at HSR seminar, Utrecht. 2014. Slide 3.

⁵⁶¹ 118 Sane, J., Edelstein, M. (Chatham House). Overcoming Barriers to Data Sharing. 2015. Pg. 3.

Policy makers express disdain, even publicly, if the data shows negative results or regression in those areas under their responsibility. On the other hand, promising outcomes are the politicians' best friends. Researchers need to be wary of this 'schizophrenic' reaction to the evidence they are gathering. Contextual factors should also be kept in mind before conclusions are reached using the comparative approach. As already intimated, potential hidden political agendas can distort the available evidence⁵⁶² and results can be interpreted in a manner which is not accurate or reflective of the true situation.⁵⁶³ This to avoid what is termed as '*policy abuses of comparative measures*'.⁵⁶⁴

7.5 A new model for informing policy through HSPA

One of the strengths of HSPA is its predilection to utilise models to communicate its results. Models of policy development are also important to understand the complexity of policy making. In this last section, the author proposes a new model to garner a greater understanding of how HSPA impacts policy, based upon the findings of this research and the experiences of the author whilst pursuing these studies.

7.5.1 Models to date

This research has presented and discussed numerous models, particularly those pertaining to HSPA. The creation of a HSPA model or framework invariably precedes any HSPA process as most countries and health systems have developed a model to reflect the main facets of their performance assessment system. Although these models do not add to the scientific process, they are a pictorial representation of what the health system stands for and show which dimensions or domains are considered important for that health system. The models depicted during this research pertained mainly to the HSPA of a country or region including those of Malta, Belgium, Netherlands, Portugal, Estonia, Turkey, England, Ontario (Canada), Australia, China, Georgia, Slovenia, Denmark, France and Sweden.

Other models pertaining to international or national organisations were also discussed, such as those of the Institute of Medicine (USA), the Commonwealth Fund, OECD

⁵⁶² 6 Smith, PC., *et al.* Performance Measurement for Health System 2009. Pgs. 644-645.

⁵⁶³ 128 Hofmarcher, MM. Smith, PC. (eds.). The Health Data Navigator. EuroREACH. 2013. Pg. 10.

⁵⁶⁴ 12 Papanicolas, I, Smith, PC. Health System Performance Comparison. 2013; pg 2.

HCQI, WHO, ECHI, SPC-JAFH and Canadian Institute for Health Information. Whilst each model has its peculiarities, they all follow a similar structure in depicting their dimensions and relationships with the external and internal environment. Indeed, we have seen that most of these models have a theoretical basis to underpin the way the health system functions. Most models use the Donabedian framework of input, process and outputs (used by Malta, Estonia, Portugal, Georgia). This nomenclature is easy to adopt and reflects how many health systems are structured. Other theoretical underpinnings include the Logic Framework (used by Canada and China), the Balanced Score Card (England), the HCQI Quality Model (OECD and Netherlands) and Goal Driven (WHO).

Interestingly, the author came across very few models which illustrates the relationship between HSPA and policy development. The only model which was formulated specifically to illustrate the input from performance assessment into the policy making process was the Ontario Model (Veillard, et al., 2010). This showed how health system performance indicators are incorporated into financial modelling and accountability agreements which are then fed back into the strategic planning process.

7.5.2 Proposing a new model

Due to the dearth of models available to represent the main topic of this study, i.e. the relationship between HSPA and policy formulation, the author felt that it would be appropriate to suggest a new model to encompass the main findings of this research in a visual manner. This model highlights the so called ‘tug-of-war’ between the evidentiary path to policy development through HSPA and other non-evidentiary extraneous factors that influence the policy agenda. It acknowledges the multi-faceted approach to policy making whilst realising the significant role that HSPA plays in this process. The ultimate objectives remain improved health status and better health outcomes.

The dimensions on the left (in red) represent the building blocks of the HSPA. The model places a direct link between each dimension and the policy area it exerts influence over. Quality, the Care Environment, Access and Efficiency indicators mostly impact service provision and inform decisions around allocation, distribution

and management of resources in health services. Risk protection and Equity provide information on level of health care coverage, uncovers gaps in equity of access and determinants mechanisms for health care funding. Resource generation and allocation, stewardship (leadership, governance) and sustainability issues provide evidence and information on the budgeting process, investment planning and share of budgetary allocation within the health system. Effectiveness indicators measure the outcomes of treatments and direct care services. Finally, patient centred indicators dealing with responsiveness, appropriateness of care and safety are linked to the whole raft of patient initiatives such as patient pathways, clinical protocols and patient rights and obligations.

On the other hand, there is a recognition that external not evidentiary factors also have an impact upon policy making. These range from the public's perspectives and expectations, to patient pressures, socio-economic and financial factors, political exigencies and international variables. The policy process is also considered where various policy making models are outlined, reflecting the many channels available to formulate and implement policy.

The ultimate goals and objectives are clearly delineated as the product of this model (Figure 7.1), where better health care outcomes, enhancing health status and improving health care services remain at the forefront of any performance-policy model.

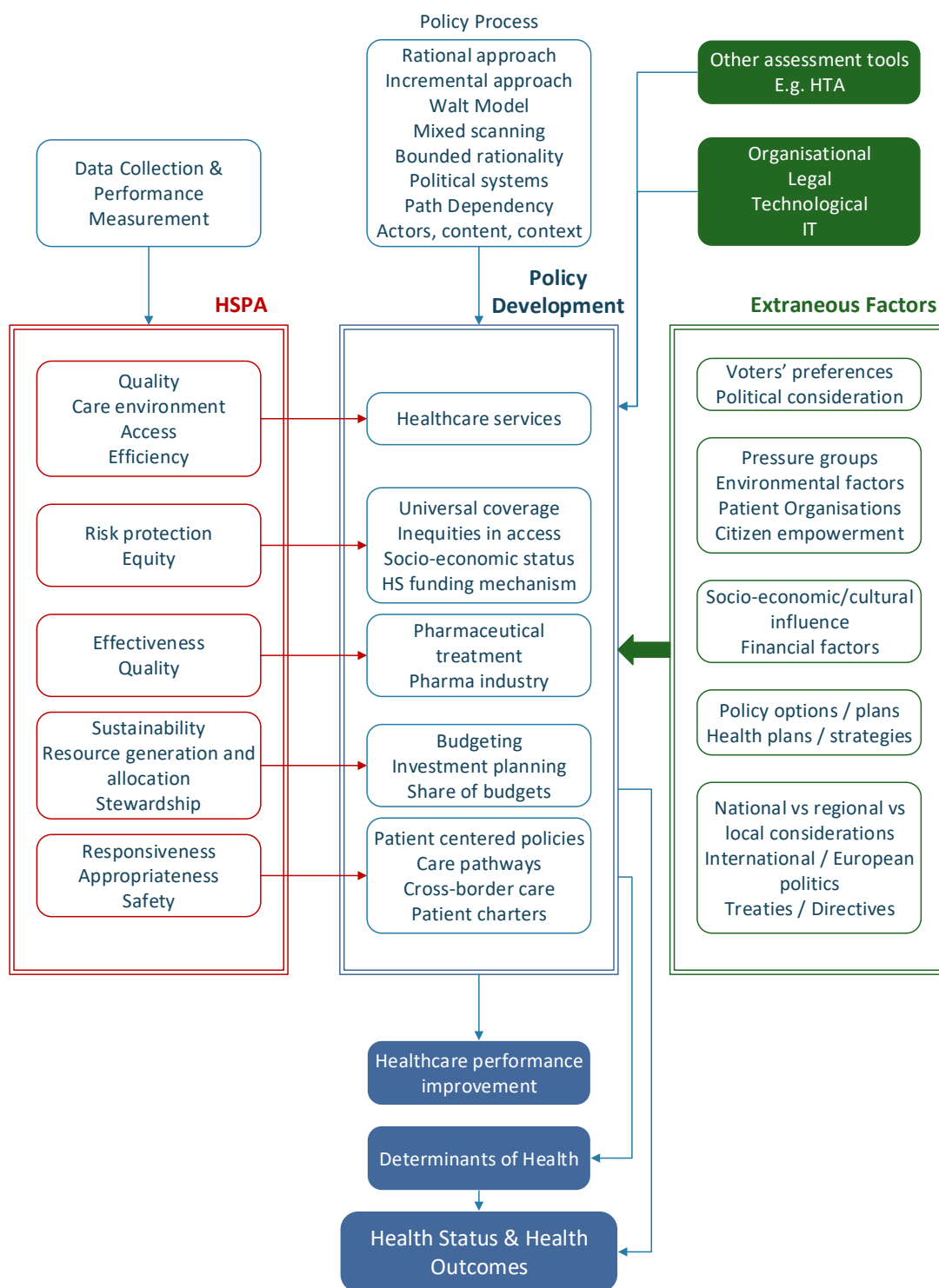


Figure 7.1 HSPA - Policy Development Model

7.6 An innovative approach to research

This thesis sought to elicit evidence on the role performance assessment, and HSPA in particular, has on policy development and reform. This initially involved the analysis of over 150 documents. As rich as this exercise was, further in-depth exploration was required to gain a deeper understanding of this complex subject. Initially, the traditional route of organising key informant interviews and a focus group or modified Delphi Technique meeting/s was to be pursued. However, the author's involvement on Malta's HSPA serendipitously led him to the centre of the European Union's focus on HSPA, which, at the time, was viewed by the European Commission with fervour and zest as the 'new kid on the block.' This permitted the author to continue to pursue an intense and very rewarding, yet unique participatory observation study over a three-year period, taking him to many capitals of Europe and networking with prominent experts in the field.

The ethnographic nature of this method ranged from participant observation to participatory action. The author's membership on Malta's HSPA Working Group and in the EU HSPA Expert Group corresponds with a participatory research methodology. However, this did not follow the traditional participant observatory route as suggested by Gold (1958) (based on the level of concealment of the researcher from the participants). Whilst the author was a complete participant in these groups (full participation), his research was also known to the other members of the groups (no concealment). Alternative viewpoints to this methodology were sought DeWalt & DeWalt (2011, pp. 4-5); Spradley (1980, pp. 58-62); Adler and Adler (1987, p. 39); Potvin, Bisset and Walz (2013, pp. 433-441). However, these were unsatisfactory as they were considered rather arbitrary and out of synch with the author's actual experience.

The author could not find similar methodological instances to mirror this research experience although as Whyte (1979) observes, the collaborative nature of participatory research is the most salient feature of this method as it nurtures a level of trust and cooperation between researcher and participant and more importantly gains access to the richness and fullness of information that the participatory process provides. This level of trust was also essential to complete the transition from

participant observation to participatory action research, which then allowed the author to steer Malta's HSPA working group as well as shape the evolution of HSPA at a European level. Wadsworth (1998, p. 1) describes this as *'an expression of 'new paradigm science' that differs significantly from old paradigm or positivist science.'*

7.7 The evidence base

This research has added to the evidence base on performance assessment, particularly in relation to policy development. It has shown how policy makers can and indeed should be utilising performance data as evidence to take policy decisions. It has shown the methods available, the challenges and the caveats that one needs to be aware of when linking performance and HSPA with policy making. This research has also highlighted which methods and approaches work and which require further elaboration.

7.7.1 Gaps in evidence

The unavailability of information for decision makers leads to insufficient use of knowledge for measuring and enhancing health system performance. The Alliance for Health Policy and Systems Research of the WHO believe that the concept of 'insufficient use' is two-dimensional. On the one hand, sufficient information is not available to be able to take informed decisions. Secondly, even when information is available, policy makers do not know how to use it or do not use this information to their advantage. Both these scenarios present difficulties in an ever-changing health care scenario.⁵⁶⁵

For this reason, WHO, at an early stage, cognisant of these challenges, drew up a report on 'Investing in Health Research and Development', which paved the way for an increased investment in health systems research on performance assessment.⁵⁶⁶

7.7.2 Further research

As far back as 2001, WHO's Executive Board had already recognised the need and importance of evidence-based research. It suggested the development of a *'multi-year*

⁵⁶⁵ 93 Alliance for Health Policy and Systems Research, Geneva. Strengthening health systems. 2004. Pg. viii.

⁵⁶⁶ 55 – WHO (Europe). Health systems strengthening in the context of Health 2020. 2015.

*plan for further research and development of the framework and its relevant indicators to assess the effectiveness and efficiency of health system.*⁵⁶⁷ Since then research and studies on evidence-based management or policy-making have become more mainstream. Kyratsis Y. *et al.* (2014) claim that *‘the discourse espousing the principles of evidence-based management and the idea of using research evidence to support managerial decisions also emerged in mainstream management and organisation studies literature.*⁵⁶⁸

Public health and policy research is not as well developed and not equally funded as other health sciences although the European Observatory on Health Systems and Policy believes that *‘excellence in public health research will strengthen the role of public health in Europe and support (further) funding.’* However, it also calls for public health research to be more systematically driven and to be based on more cost-effective research goals.⁵⁶⁹

Fortunately, there are many EU funded research projects such as SPHERE⁵⁷⁰ and STEPS,⁵⁷¹ which, although providing *‘insights into the state of public health research in EU member states,’* Europe still lags behind the United States where *‘far more systematic research’* is undertaken.⁵⁷² This is perhaps because research at EU level is not yet well coordinated as the Working Party on Public Health at Senior Level admits by stating that *‘the Commission could facilitate the setting up and the continuity of a research infrastructure to support the harmonisation of data collection, the development of indicators, methodologies for analysis and methodologies for recommendations.*⁵⁷³

⁵⁶⁷ 52 WHO Executive Board. Health Systems Performance Assessment. 2001. Pg. 3.

⁵⁶⁸ 127 Kyratsis Y. *et al.* Making sense of evidence in management decisions. Health Serv Deliv Res 2014. Pg. 1.

⁵⁶⁹ 8 Euro Observer Volume 21, No. 1, 2015. Reducing inequalities in health and health care. Pg. 26.

⁵⁷⁰ www.ucl.ac.uk/public-health/sphere. [Accessed 3 July, 2016].

⁵⁷¹ www.steps-ph.eu [Accessed 3 July, 2016]

⁵⁷² 125 Rechel, B., McKee M. (Eds). Facets of Public Health in Europe. EOHSP. 2014. Pgs. 289, 318.

⁵⁷³ 4 Working Party on Public Health at Senior Level - Report by sub-group 5: Health investments. 2013. Pg. 27.

7.8 A critique of the study

Given the qualitative approach adopted for most of the study, certain challenges peculiar to qualitative studies were encountered. This section discusses these challenges and the techniques adopted to assure the quality of the study.

7.8.1 Attributability

The major challenge or limitation of HSPA is one of attributing causality, in the form of performance measurement, to the development of policy, given that policy formulation takes many forms and is determined by a myriad of internal (to the organisation/system) and external factors such as the economy, values inherent to the population and other environmental and political influences. Hence, the relationship between performance and policy, even after considering political and economic issues, may remain open to external and other influences and confounders, due to the more 'political' and managerial issues commonly encountered in service delivery.

As is widely evidenced, many other non-health factors have had and continue to have a direct or indirect influence upon policy setting. Furthermore, environmental, socio-economic and other factors are known to have an impact upon the health status of the population (Novice, 1999). Indeed, much research is currently being carried out on the social determinants of health (Wilkinson & Marmot, 2003).

Researchers have partially dealt with this challenge by generating performance indicators which are considered a direct consequence of the health system and not of other non-health systems, such as that of avoidable or amenable mortality (Nolte & McKee, 2008). However, confounding remains a challenge that needs to be acknowledged, if not overcome. This is the reason why this research did not only look for evidence of a direct and indirect causal link between health system performance assessment frameworks and policy development and change but also at other factors that influence policy. This was possible since the nature of the study permitted a deeper analysis of the factors impacting upon the pace and extent of policy development and reforms, both health related and non-health variables.

7.8.2 Confirmability

Confirmability relates to ensuring an objective interpretation of the findings, rather than being subject to the researcher's whims and preferences (Lincoln & Guba, 1985). Whilst a certain element of personal intrusion into the interpretative process cannot be avoided, the author sought to confirm and support his findings through discussion with the other members of the NEWG and the HSPA EG. The uptake of a document analysis worksheet for each report or document that was reviewed also ensured a standardised and methodological approach to the analysis. When discussing the findings, the author also sought to present rival and contrasting viewpoints, as a means to remain as close as possible to the varying interpretations of the participants (Silverman, 2013).

7.8.3 Replicability

This refers to the dependable nature of the study in terms of repeatability (Bowling, 2014). It presupposes that if the study were repeated by another researcher using the same context and same participants, similar conclusions would be reached. This was kept in mind when outlining the detail of the methods used, both as part of the development of Malta's HSPA and also in his participation of the HSPA EG. This detail would allow other researchers to follow suit and adopt the same methodology.

7.8.4 Credibility

This relates to the trustworthiness of the research process and is also linked to dependability. The author's research as part of the NEWG was embedded into a collective, where issues were discussed, and consensus was reached on the methods to be adopted. This is congruent with similar studies where the development of a HSPA model requires multi-user and multi-expert input (Perić, Hofmarcher-Holzhacker & Simon (2017). Also, the multiple methods utilised as part of the participatory observation phase ensured an element of triangulation and verification. The notes and data collected by the researcher in this phase was complemented by focus groups and peer review meetings, which continued to discuss and debate the issues at hand. Moreover, the immersion of the author into a group of individuals who were the *de facto* experts of HSPA in Europe for over 3 years certainly lent credibility to the research experience

7.8.5 Transferability

Transferability refers to the applicability and relevance of this research and its findings to other settings, other populations, locations and time frames (Miles & Huberman, 1994). Throughout the text, the author sought to explain the contextual and social relationships of the key players involved as well as the political milieu that most proponents faced when integrating HSPA into their policy cycle. This provided sufficient detail to understand how and if various aspects of this study can be transferable to other settings and situations.

Certainly, the reality of the small state or the small health system of a region within a larger country can be associated with this study (Grech & Lai, 2014). Indeed, other small states such as Slovenia and Latvia have sought to replicate parts, if not all, of the methodology adopted for Malta's HSPA.

The findings derived from the author's participation in the EU HSPA Expert Group pertain to the European arena and are certainly applicable to most countries in the European region. Indeed, the research findings may also be transferable to other geopolitical blocks or regions, similar in constitution and political status to Europe.

7.9 Conclusion

This chapter provided an overview of the salient points that have emerged in the course of this research journey, culminating with a proposal of a new model to understand how HSPA and other factors influence and direct policy.

The next chapter draws some final conclusions and suggests a number of recommendations for the future.

CHAPTER 8

CONCLUSION AND RECOMMENDATIONS

"You can fool all the people some of the time, and some of the people all the time, but you cannot fool all the people all the time."

Abraham Lincoln

CHAPTER 8

CONCLUSION AND RECOMMENDATIONS

8.1 Introduction

This final chapter rounds up the main salient points that have arisen throughout this research and puts forward recommendations for further research and for policy development.

8.1.1 HSPA: Its current and future position

HSPA has been with us for around 15 years. During this time, both the scientific community and health service leaders have come to appreciate and use the results emanating from HSPA to primarily improve services but also to inform policy. They have also learnt how to apply HSPA in many settings and contexts (Kelley, Arispe & Holmes (2006). We have seen that a conceptual model is important for HSPA to outline the boundaries of the health system and delineate its various components as well as select the most appropriate indicators.

It was also important to understand the limitations of HSPA, especially in view of attributability or causality, as well as limitations in comparability (Mainz, et al., 2004). HSPA is not the be all and end all of performance assessment but should be viewed as one of the main tools available today to assess the performance of health systems. Recognising its ‘fit’ into the performance assessment landscape is important to position HSPA correctly.

Today, there are many advocates for HSPA. Most view HSPA as an effective means to develop evidence-based policies, improve quality of care, and strengthen health system governance. It has the support of all the major international agencies and organisations which believe that each health system should have a HSPA framework to inform policies, improve care as well as increase transparency and accountability.⁵⁷⁴

⁵⁷⁴ 139 ERRIN 15. Enhancing Value in European Health Systems - The Role of Outcomes Measurement. 2016. Pg. 33.

The EU views HSPA as a ‘*solid tradition in the Member States and at European level.*’⁵⁷⁵ In truth only time will tell if this tradition is upheld and strengthened or whether HSPA would be superseded by newer more innovative measurement methodologies. In this author’s view, HSPA is already a permanent feature in health and it can only improve and become more attuned to the needs of the health systems it is supporting.

8.1.2 Policy making: Adopting a wider definition

The greatest quandary faced by the author in this study was why evidence-based solutions to problems are not implemented in practice. There is no easy answer to this. We have seen that policy making is a dynamic, shifting and sometimes unpredictable process, involving a myriad of actors with different priorities and agendas.⁵⁷⁶ We have also deduced that policy is influenced by many factors, not all of which are grounded in evidence. This thesis held the premise, certainly initially, that evidence is only obtained through robust scientifically proven methods, including data and information obtained through HSPAs.

On hindsight and after this journey of discovery, it is now evident that this could be considered as a ‘narrow’ definition of evidence. If a wider interpretation of evidence is considered, it can be argued that many other factors, which are not necessarily grounded in scientific fact, also contribute towards providing the required evidence to take the correct policy decisions. We have recognised this as a paradigm shift from ‘*evidence-based public health,*’ to ‘*evidence-informed public health,*’ one which ‘*acknowledges more explicitly the multitude of factors that influence public health decisions.*’⁵⁷⁷ The author feels that this consideration is fundamental to understand the role that HSPAs (and other evidence gathering methods) have in future policy making. Moreover, understanding the ‘*decision-making processes and factors that influence the process can increase the potential for inserting research information into the process.*’⁵⁷⁸

⁵⁷⁵ 4 Working Party on Public Health at Senior Level - Report by sub-group 5: Health investments. 2013. Pg. 24.

⁵⁷⁶ 14 Leppo, K., *et al.* Health in All Policies. 2013. Pg. 5.

⁵⁷⁷ 125 Rechel, B., McKee M. (Eds). Facets of Public Health in Europe. EOHSP. 2014. Pg. 303.

⁵⁷⁸ 93 Alliance for Health Policy and Systems Research, Geneva. Strengthening health systems. 2004. Pg. 51.

Once the above is recognised and accepted, then HSPA can and already has been considered as one of the more important and relevant methods to inform policies and plan reforms. This research has shown that it is difficult to directly attribute HSPA to specific policies and reforms but this is not to say that this relationship does not exist, only that measuring its impact is difficult. This is because researchers look towards the traditional scientifically robust methods to seek out an association but this study and the chosen methodology has clearly shown that other creative approaches could be used to evaluate and trace the relationship between HSPA and policy development.

8.2 Limitations of method and analytical approach

The benefits and richness of the research methodology, in particular the mixed methods approach and the participatory observatory experience undertaken have already been highlighted under the respective methods sections and so shall not be repeated here. As with all research, limitations and challenges have been encountered. Many of these have already been covered under the respective chapter. Those highlighted in the next sections refer to overall considerations.

8.2.1 Phase I: Document analysis

As with most qualitative research, because samples are usually (though not always) small and non-probabilistic, the ability to claim a representative sample is often diminished, and statistical generalization is impossible, although this was not the aim. However, this was partly mitigated by extending the number of documents that were reviewed to a substantial amount (n=159) until no new information was generated, reaching saturation of the data analysed.

One of the more common pitfalls in document analysis is that subtle or less-than-obvious data may be missed or overlooked. This was mitigated by sticking to a standardised process for analysis and by creating a document analysis worksheet for each document. Another inevitable limitation was the use of only the English language for sourcing the documents. Whilst this is not usually a problem when searching for research literature, some official policy and legal documents in European countries are not in English and so have been automatically excluded from the study.

Translation techniques could have been employed but this was not feasible for a single researcher with time limitations.

Another well-documented shortcoming is the risk of low retrievability, wherein it is sometimes not possible to retrieve all relevant documentation due to access restrictions. However, this is now less of a problem with the advent of the internet, especially since most documents, even official and policy documents, are in the public domain or can be accessed due to freedom of information provisions (Yin, 1994, pp. 32-33). Documents are not produced for research purposes but for a myriad of other reasons. They are created independently of the research agenda. This inevitably leads to a mismatch between the sufficiency of detail required from a document and the research question under examination.

One other limitation linked to a single researcher working on his/her own, as is the case for this study, is biased selectivity, wherein certain types of documents are included or excluded from the analysis, depending upon the perspective of the researcher. This is overcome by procuring as many documents as possible from as varied a source as possible.

8.2.2 Phase II: Development of Malta's HSPA

The main limitation, in terms of scientific 'purity,' was the influence that the policy makers had on the latter stage of the process in the development of Malta's HSPA. Whilst this was not obvious and was actually expected as part of the methodology, it did impact the selection of the final set of indicators, some of which were not chosen on the basis of the adopted scientific method but were inserted to meet the contextual and political exigencies at the time. Nonetheless, the development of the model, its dimensions and the selection of most of the indicators, as well as the data collecting and analytical process were all methodologically sound.

8.2.3 Phase III: Participatory research

The obvious possible limitation was one of observer bias. However, since the author was one of the first members of the HSPA Expert Group, his presence and contribution was (and still is) appreciated by all and the *rapport* generated was such that it did not impede, in any way, frank and candid discussions.

8.3 Recommendations for action by researchers and policy makers

There are several recommendations for action directed at both researchers and policy makers, on their own as well as together.⁵⁷⁹ It is important for all those involved to view *‘performance management as a collective exercise that influences policy and leads to continuous quality improvement, rather than as a technical problem that involves few stakeholders and leads to few policy relevant outputs.’*⁵⁸⁰

The HSPA process is quite unique in that it requires the close interface of researchers with policy makers. Whilst traditional research is positioned at a distance from its audience, for HSPA to be effective, there needs to be a close interplay between those who develop HSPA and those who act on it. This collaboration is key for HSPA and determines the difference between those HSPAs that have been successful and those that have not had an impact on health system improvement and policy change.

Mutual action by both researchers and policy makers contemporaneously is therefore advocated, not only to foster greater cooperation but to also create relationships based on mutual trust and understanding. This is the basis for generating evidence from HSPAs. This can be achieved through the implementation of health policy networks or observatories that promote the joint efforts of researchers and policy makers. The European Observatory of Health Systems and Policies is a prime example of such a collaborative effort. The benefits emanating from its work are numerous as the Observatory has participated and indeed was implicated in many reforms and policy changes.

Moreover, knowledge brokering methods need to be enhanced to foster a greater *‘awareness about concepts and tools among policy-makers, stakeholders and researchers.’*⁵⁸¹ This is achieved through supporting the strategic process for evidence-based policy making,⁵⁸² and increasing the availability of data, health information, performance indicators and relevant evidence.⁵⁸³ Researchers and policy

⁵⁷⁹ 10 Garrido, MV, *et al.* Health Technology Assessment and Health Policy Making in Europe. 2008. Pg. 150-151.

⁵⁸⁰ 84 OECD. OECD Reviews of Health Care Quality-Italy 2014-Raising Standards. 2014. Pg. 182.

⁵⁸¹ 102 Lavis, JN., *et al.* Bridging the worlds of research & policy in European health systems. EOHSP. 2014. Pg. 9.

⁵⁸² 149 WHO (Europe). Investment for Health Appraisal in Malta. 2001. Pg. 17.

⁵⁸³ 49 SNIPH. Ten years of Swedish public health policy. 2013. Pg. 22.

makers also need to work more closely together to create efficient health information systems for the collection and use of performance and outcomes data. *‘The development of health information infrastructures should therefore be a key objective of national governments in the development of HSPA frameworks.’*⁵⁸⁴ This is also achieved through the uptake of national registries and other administrative databases for measuring quality of care and the use of electronic health records to generate the required detailed clinical information to populate a health information system.⁵⁸⁵

On the part of researchers, whilst their work is essential for the development of HSPA and for extracting the evidence derived from their implementation, it is important that they seek to generate evidence that is cost-effective, of policy relevance and that it creates value for money. The aim of such research is very different to that derived from academic research. Data analysis and results from HSPA feed directly into the improvement and change management cycle and so the evidence needs to be relevant for managers and policy makers. To this effect, HSPA findings need to be translated into meaningful conclusions, where the results are communicated in a succinct but factual manner.⁵⁸⁶ Again due to the unique nature of HSPA as a tool for provided evidence in the form of data and performance indicators, it is important for researchers to retain a modicum of impartiality and autonomy, combined with a great deal of objectivity.

On the other hand, policy makers are at the receiving end of the evidence resulting from the HSPA process. They have the enviable responsibility of incorporating HSPA into the policy agenda and need to ensure an open transparent setting to allow HSPA to fully realise its potential. Policy makers need to inculcate and encourage a culture of inquiry, change and openness, whilst acquiring the required skills and training to understand and assimilate the research findings and evidence. They need review the available evidence regularly, constantly question the findings and enquire into the methods used by researchers. In so doing they also need to improve access and augment interaction with researchers. As the Belgian HSPA concluded in their third

⁵⁸⁴ 139 ERRIN 15. Enhancing Value in European Health Systems - The Role of Outcomes Measurement. 2016. Pg. 35.

⁵⁸⁵ 78 OECD. Improving Value in Health Care – Measuring Quality. 2010. Pg. 11.

⁵⁸⁶ 70 WHO (Europe). Environment and health performance review – Poland. 2009. Pg. xvii.

iteration - *'policymakers should (therefore) define health system objectives that are measurable, set deadlines by which these objectives should be attained, and appoint accountable organisations. Quantified targets should be proposed along with specific objectives.'*⁵⁸⁷

8.4 Policy recommendations

A number of recommendations are also advocated for the adoption of policy changes that would serve to promulgate HSPA at a national and regional level.

The absence of legislation and other legal instruments was apparent in performance assessment, especially linked to the implementation of HSPA. As with many other methods, legislation is required, both at EU level and nationally to anchor HSPA into the policy cycle and ensure its permanence and relevance for policy makers. This is usually followed by the presence of an adequate governance structure for the development, analysis and implementation of HSPA⁵⁸⁸. Countries which have successfully implemented HSPA have adopted a robust and legally binding organisational framework to manage the HSPA process.

Following on the work of the HSPA Expert Group, the author believes that an EU-HSPA network should be created, to continue this valuable work and possibly serve as a prelude to an EU-wide HSPA model in the future. The purpose for this recommendation is not to straight jacket member states into adopting a common HSPA framework but to facilitate comparative performance assessment methodologies and to enhance mutually learning and growth.

Investment in EU, national and local data collection and analytical tools is essential to generate the information and evidence required to sustain any performance assessment system, including HSPA. There have been several attempts at developing common definitions and data collecting mechanisms, some of which have been successful in generating the required evidence for policy making (Carinci, et al., 2015);

⁵⁸⁷ 158 KCE. Performance of the Belgian Health System Report 2015. 2015. Pg. 64.

⁵⁸⁸ 250 Meeus P. HSPA Belgium And so what. Peer Review meeting. Brussels. May 2014.

(Braithwaite, et al., 2017). However political and financial commitment is required at the highest level to sustain this movement.

8.5 Recommendations for further research

Several additional gaps in research have been identified. These merit further work.

Whilst HSPA provides a high-level balanced overview on the performance of a health system, more detailed analysis is always required to assess the performance of its component parts. Whilst HSPA reports provide a global evaluation, methods should be developed for the comprehensive monitoring, preferably in a timely fashion, of programmes embedded within the HSPA model.

As we have seen, the methodological process for the development and implementation of HSPAs merits further attention, especially in the development of more elaborate domains such as those linked to integrated care, the identification of more suitable indicators for under-developed areas such as primary care, mental care, chronic care, end of life care and integrated care, the linkage of indicators to concrete themes and services.⁵⁸⁹ and the elucidation of other tools and multiple sources to draw conclusions and develop policy.

Comparative performance assessment is one of the most powerful assessment tools available. However, this is fraught with difficulties and challenges and improvements in international comparative assessment methods and benchmarking through standardisation of processes, definitions and data collecting systems is solicited.

During the course of this research, the author witnessed several attempts of member states to start on the HSPA journey. However, some countries fail to get beyond the planning stage due to their lack of preparedness and the lack of political commitment. A tool to ascertain whether a health system is prepared for the introduction and implementation of a health system performance assessment framework would be extremely useful for those countries that have yet to embark on this process. This

⁵⁸⁹ 222 Grech K. Karanikolos M. Nolte E. Quality Policy Focus Group Meeting notes. Brussels. 3 Nov. 2015, pg. 4.

‘maturity model’ would indicate the gaps and challenges that a health system would face before introducing HSPA and allow them to address these gaps before beginning this journey.

The HSPA-Policy Making Model suggested at the end of Chapter 7 requires testing and tweaking. Although a theoretical framework, testing of this model would confirm its validity or otherwise and further research is required to test this model on the field.

8.6 Conclusion

This thesis has been an enduring experience and exciting journey. It tackled an innovative and exciting topic which has increased in relevance and importance over the past few years. A performance assessment framework is no longer optional or a ‘nice to have.’ It is now recognised as an essential component of any health system or health service. It provides information on the status of the health system with the aim of improving or changing direction to improve. As one of the main performance assessment methods, HSPA has developed almost exponentially, even during the course of this research and is now acknowledged as one of the more robust and policy relevant performance tools in health care.

Malta, as many other smaller countries, is in transition. Whilst its health system is well developed and comprehensive, as part of its national strategy, it required a performance assessment framework to inculcate a culture of improvement and quality care. The production of Malta’s first HSPA served this purpose and led to tangible improvements in a number of important areas of its health system. In recognition of this accomplishment and of methodology adopted for Malta’s first HSPA, the author has now been tasked to coordinate the production of the second iteration of Malta’s HSPA as well as the development of Latvia’s and Slovenia’s first HSPA frameworks. Appendix 18 presents a list of publications and projects related to this research.

The second objective of the thesis was to understand the impact HSPA has on policy. This was inevitable, given the author’s background and experience in managing health policy at a national and European level. The author wished to explore whether evidence-based policy making (through the use of HSPA frameworks) has come of

age, similarly to evidence-based medical care. The logical consequence of health system performance assessment was that it would direct or at least influence policy development in a positive constructive manner.

This study has shown that whilst HSPA and other evidence-generating tools influence policy, policy development is a complex, multifaceted process. HSPA needs to be incorporated into a myriad of other variables. Researchers need to understand how to shift the focus more on the available evidence and policy makers need to separate the evidence from other factors to generate meaningful policy options. Nonetheless, HSPA is becoming more relevant and mainstream and is being sought out increasingly more by the political class.

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02	EU. On Effective, accessible and resilient health systems. 2014	25/01/2016 16:03	KG
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164	Ingrid Schmidt. Setting up a work plan. 1st HSPA Meeting. Nov 2014.
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APPENDICES

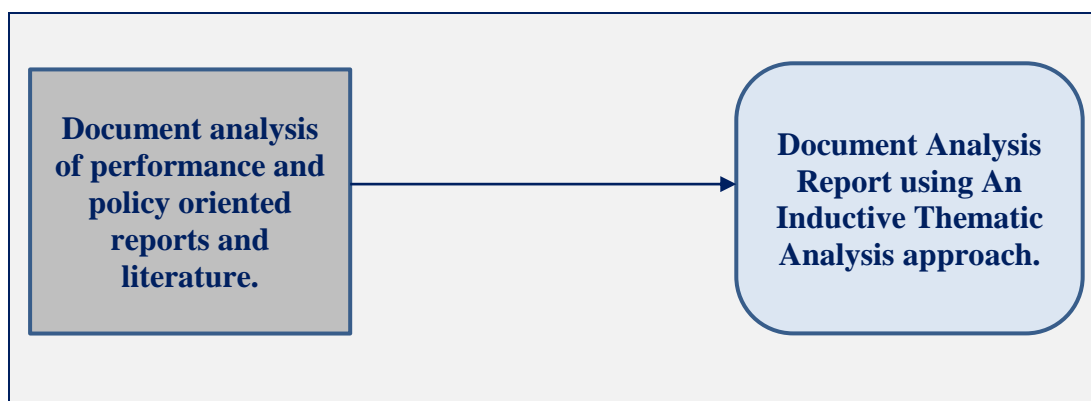
Appendix 1

Domains/dimensions of international HSPA Frameworks

Dimensions	UK	USA	Canada	Australia	Netherlands	Sweden	New Zealand	WHO	OECD	ECHI	Commonwealth Fund
Acceptability			X								X
Accessibility	X		X	X	X	X	X	X	X	X	X
Appropriateness	X		X	X							X
Care environment and capability	X							X			
Competence and capability			X	X			X	X			X
Continuity			X	X			X	X			X
Effectiveness, improving health and clinical focus	X	X	X	X	X	X	X	X	X	X	X
Expenditure and cost									X	X	
Efficiency	X		X	X	X	X	X	X	X	X	X
Equity		X	X	X	X	X	X	X	X		X
Governance	X							X			
Patient-centredness, patient focus and responsiveness	X	X		X	X	X		X	X	X	
Safety		X	X	X	X			X	X	X	X
Sustainability				X	(X)					X	
Timeliness		X			X			X			

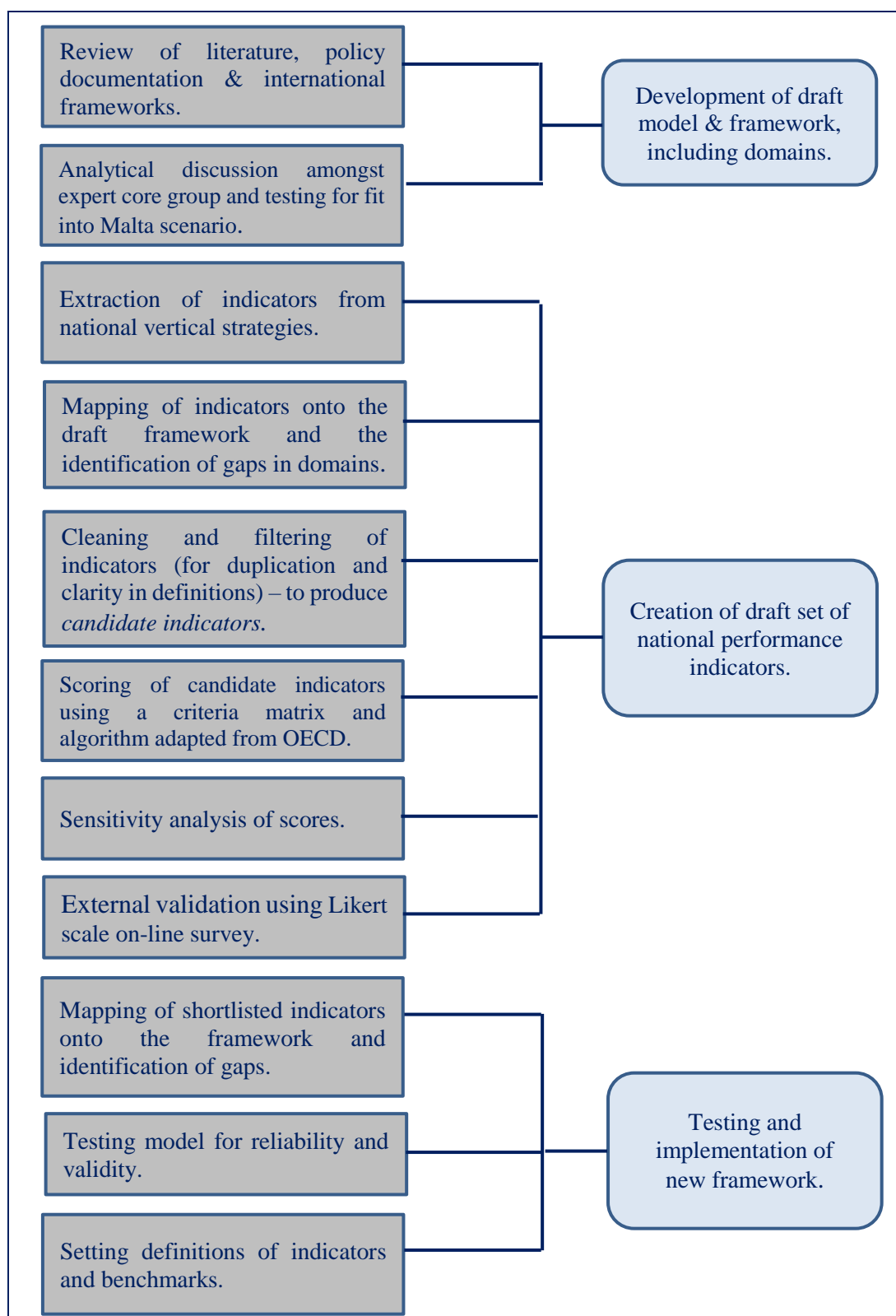
Source: Arah, O. *et al.*, 2006. A conceptual framework for the OECD Health Care Quality Indicators Project. *International Journal for Quality in Health Care*, September, pp. 5-13

Appendix 2a
Phase I: Methodology – Document Analysis

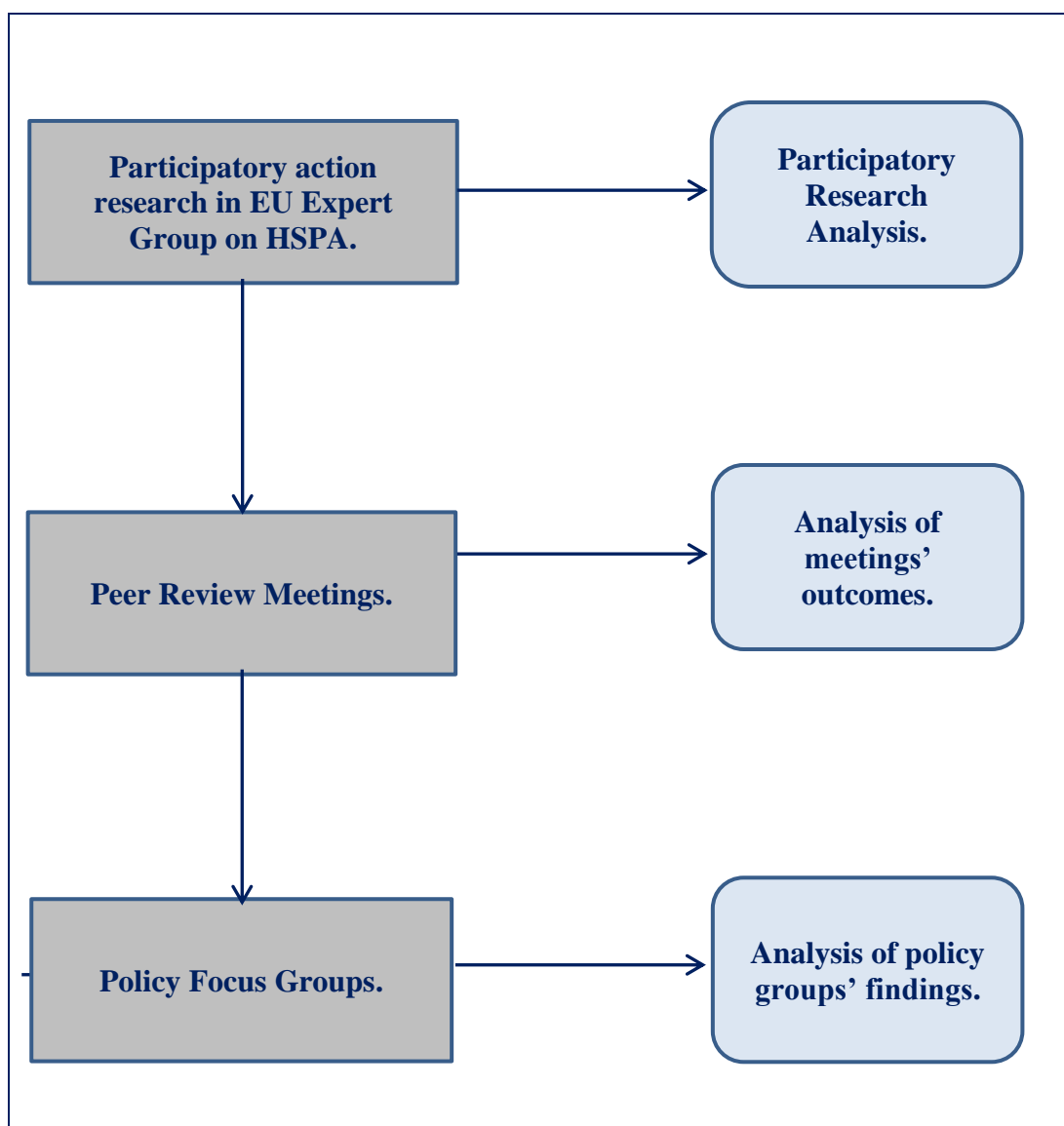


Appendix 2b

Phase II Methodology: Development of Malta's National Health System Performance Assessment Framework



Appendix 2c
Phase III Methodology – The Policy Cycle



Appendix 3a

Data Analysis Worksheet – Example 1

TITLE 3 - Seychell M, Hackbart B. The EU health strategy – investing in health. *Public Health Reviews*. 2013;35

DATE 2013 TYPE Article

AUTHOR/ EDITOR Seychell M, Hackbart B ORGANISATION/SOURCE DG
Sante, EU

BIAS OF AUTHOR/ BACKGROUND

As Deputy DG, Seychell has an interest in promoting the EU agenda and specifically the health agenda in relation to EU 2020.

KEY WORDS

Public policy, public health, health systems, sustainability, European Union

INTENDED AUDIENCE

Policy makers, academics

WHY WAS DOCUMENT WRITTEN?

As an explanation or summative attempt to the main document on the Social Investment Package (SIP) including a document dedicated to "Investing in Health

SUMMARY OF DOCUMENT FINDINGS – MAIN CONCLUSIONS

A healthy population and sustainable health systems are decisive for economic growth. Investing in sustainable health systems means that cost-effective spending, structural reforms and sound innovation can bring efficiency gains and secure better health outcomes. Investing in people's health also boosts economic growth by enabling individuals to remain active longer and in better health

EVIDENCE OF LINK BETWEEN HSPA & POLICY DEVELOPMENT

In 2013 the Annual Growth Survey (AGS) recommended monitoring performance of health system against the twin aims of providing access to high-quality healthcare and using public resources more efficiently.

EU giving importance to assessment of performance to foster growth and sustainability
OTHER IMPORTANT INFERENCES.

Appendix 3b

Data Analysis Worksheet – Example 2

TITLE 155 – van den Berg, M. *et al.* Dutch Health Care Performance Report 2014.

MJ van den Berg, D de Boer, R Gijsen, R Heijink, LCM Limburg, SLN Zwakhals. Dutch Health Care Performance Report 2014. National Institute for Public Health and the Environment (RIVM)

DATE 2014 TYPE Country report

AUTHOR/ EDITOR MJ van den Berg, D de Boer, R Gijsen, R Heijink, LCM Limburg, SLN Zwakhals

ORGANISATION/SOURCE National Institute for Public Health and the Environment (RIVM)

BIAS OF AUTHOR/ BACKGROUND

Experts and researchers on subject. Responsible for developing HSPA in Netherlands.

KEY WORDS

INTENDED AUDIENCE

Policy makers, politicians, parliament, academics.

WHY WAS DOCUMENT WRITTEN?

Fourth iteration of HSPA report of the Netherlands.

SUMMARY OF DOCUMENT FINDINGS – MAIN CONCLUSIONS

Overview of results of HSPA report. Policy links and decisions are elaborated upon. Each conclusion has policy implications and decisions.

EVIDENCE OF LINK BETWEEN HSPA & POLICY DEVELOPMENT

Some examples and good practice of linking policy with hspa results and recommendations.

OTHER IMPORTANT INFERENCES

Rather meagre in presenting policy inferences, even though this is the fourth HSPA report.

Appendix 4

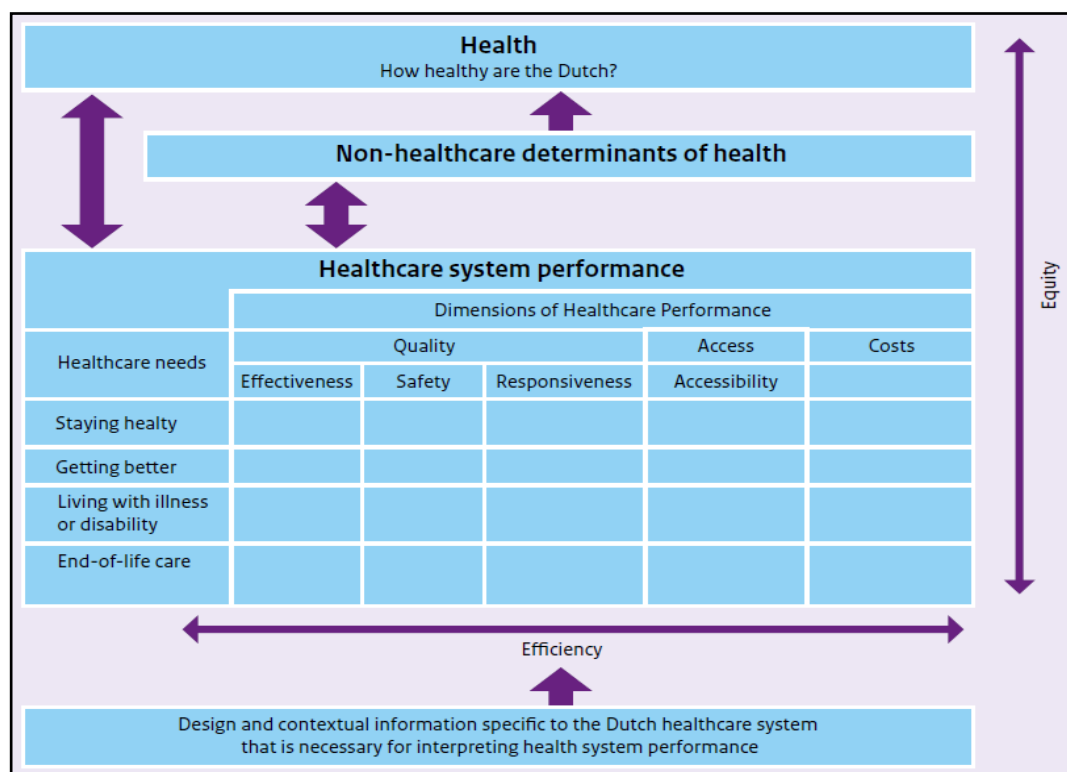
List of members of National Expert Working Group (NEWG)

Dr Neville Calleja,	a/Chief Medical Officer - Chair
Dr Natasha Azzopardi Muscat,	Consultant, Public Health Medicine
Dr Antoinette Calleja,	Officer in Scale 5
Dr Miriam Dalmas,	Consultant, Public Health Medicine
Ms Karen Demicoli,	Director, European Policy & International Affairs
Dr Sandra Distefano,	Consultant, Public Health Medicine
Dr Kenneth Grech,	Consultant, Public Health Medicine
Dr Maya Podesta,	Specialist Trainee, Public Health Medicine
Dr Taavi Lai,	WHO Advisor to NEWG

Appendix 5

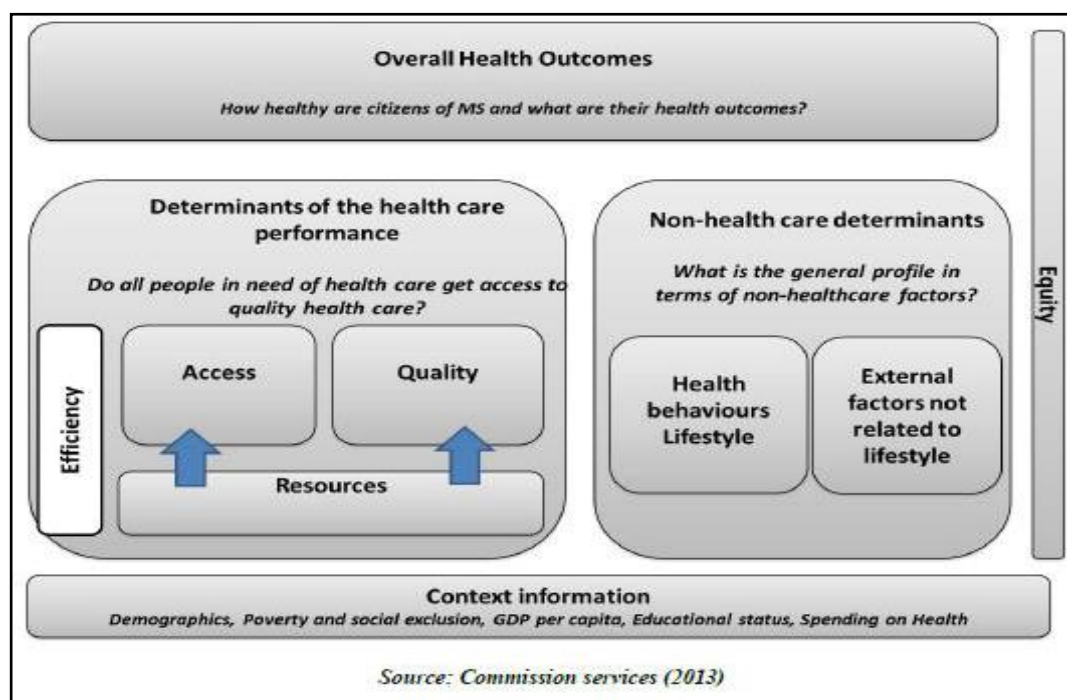
International HSPA Frameworks

World Health Organization, OECD and Netherlands



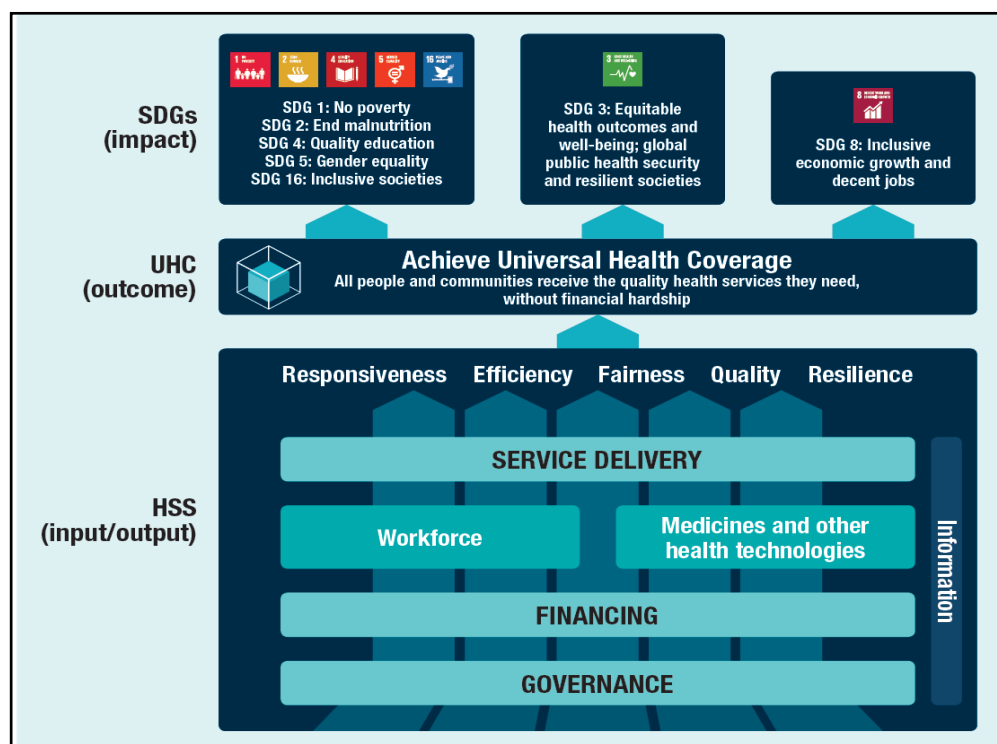
Appendix 5 (cont.)

European Commission Social Protection Committee (Joint Assessment Programme)



Appendix 5 (cont.)

WHO Sustainable Development Goals Framework



Appendix 6

Definitions of dimensions

CATEGORY	DIMENSION	DEFINITION
DRIVERS (INPUTS)	Stewardship	Refers to, leadership, governance, legislation & regulation.
	Resources (Resource Generation)	Corresponds to the “financial, human, physical, technical and informational (including evidence and high-quality data) resources that are available to the health system.” ⁵⁹⁰
	Financing	The method and means of financing the health system.
	Health Care Services	The delivery of care to patients with the aim to improve, cure or manage ill health.
	Public Health Services	Public Health is defined as “the art and science of preventing disease, prolonging life and promoting health through the organized efforts of society.” ⁵⁹¹ Public health systems are commonly defined as “all public, private, and voluntary entities that contribute to the delivery of essential public health services within a jurisdiction.
INTERMEDIATE GOALS	(Equity and) Access	Access – “[I]s the ease with which health services are reached. Access can be physical, financial or psychological, and requires that health services are <i>a priori</i> available.” The notion of access encompasses, “all types of delay during the contact between a patient and a provider, such as delay for a medical appointment, the waiting time in an emergency room and delays for surgery after admission.” ⁵⁹²

⁵⁹⁰ Canadian Institute for Health Information. 2013. *A Performance Measurement Framework for the Canadian Health System*. Canadian Institute for Health Information: Ontario, pg. vii.

⁵⁹¹ Acheson D. Public health in England. The report of the committee of inquiry into the future development of the public health function. London, HMSO, 1988

⁵⁹² Kelley, E., Hurst, J. 2006. *Health Care Quality Indicators Project Conceptual Framework Paper*, Paris: OECD, pg. 13.

Appendix 6 (cont.)

CATEGORY	DIMENSION	DEFINITION
INTERMEDIATE GOALS (cont.)	Responsiveness (and Choice)	<p>Responsiveness used synonymously with <i>patient-centeredness</i>. “Patient centeredness is the degree to which a system actually functions by placing the patient/user at the centre of its delivery of healthcare and is often assessed in terms of patient’s experience of their health care.</p> <p>This experience of care refers to the caring (Scott et al., 1995)⁵⁹³, communication (Ong et al., 1995⁵⁹⁴; Roter et al., 1997⁵⁹⁵), and understanding that should characterize the clinician-patient relationship.</p> <p>The emphasis here is on the patient’s report of her or his experience with specific aspects of care and goes beyond her or his general satisfaction or opinion regarding the adequacy of care.”</p>
	Efficiency	The system’s ability of maximising the use of available resources.
	Quality (and Effectiveness)	Quality of care is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge. ⁵⁹⁶

⁵⁹³ Scott, Robert A., Linda H. Aiken, David Mechanic, and Julius Moravcsik. 1995. Organizational aspects of caring. *Milbank Quarterly* 73(1):77-95. IN Kelly, E., Hurst, J. 2006. *Health Care Quality Indicators Project Conceptual Framework Paper*, Paris: OECD, pg. 13.

⁵⁹⁴ Ong, L. M., J. C. de Haes, A. M. Hoos, and F. B. Lammes. 1995. Doctor-patient communication: A review of the literature. *Social Science and Medicine* 40(7):903-918. IN, Kelly, E., Hurst, J. 2006. *Health Care Quality Indicators Project Conceptual Framework Paper*, Paris: OECD, pg. 13.

⁵⁹⁵ Roter, Debra L., Moira Stewart, Samuel M. Putnam, Mack Lipkin Jr., William Stiles, and Thomas S. Inui. 1997. Communication patterns of primary care physicians. *Journal of the American Medical Association* 277(4):350-356. IN, Kelly, E., Hurst, J. 2006. *Health Care Quality Indicators Project Conceptual Framework Paper*, Paris: OECD, pg. 13.

⁵⁹⁶ Lohr, KN (1990). Institute of Medicine Medicare: A strategy for quality assurance, Volume I. Washington, DC, Institute of Medicine, in Legido-Quigley, H., Mckee, M., Nolte, E., Glinos, I.A. (2008) “Assuring the Quality of Health Care in the European Union – A case for action”. Observatory Studies Series No. 12, European Observatory in Health Systems and Policies, Copenhagen.

Appendix 6 (cont.)

CATEGORY	DIMENSION	DEFINITION
INTERMEDIATE GOALS (cont.)	Sustainability	Sustainability refers to sustainable development which is, “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” ⁵⁹⁷
GOALS (OUTCOMES)	Inequalities	Social or economic disparity between people or groups leading to unequal opportunity or treatment based on social, ethnic, racial, or economic disparity.
	Health Status	<p>“Health status of individuals and the population covers three components: health conditions, health function and well-being.</p> <p><i>Health conditions</i> reflect the health problems and alterations of an individual that may lead to distress, interference with daily activities or contact with health services. They may be a disease (acute or chronic), disorder, injury or trauma, or they may reflect other health-related states, such as pregnancy, aging, stress, a congenital anomaly or a genetic predisposition that can lead to death.</p> <p><i>Health function</i> corresponds to the general health status and functions of the population and is associated with the consequences of diseases, disorders, injuries and other health conditions.</p> <p>Health functions which include the body functions/structures (impairments), activities (activity limitations), participation (restrictions in participation) and life expectancy.</p>

⁵⁹⁷ United Nations General Assembly. 1987. *Report of the World Commission on Environment and Development: Our Common Future*. Transmitted to the General Assembly as an Annex to document A/42/427 - Development and International Co-operation: Environment. Retrieved on: 2009-02-15. IN WIKIPEDIA, *Sustainability*.

Available at, http://en.wikipedia.org/wiki/Sustainability#cite_note-7. [accessed 13 January 2014].

United Nations General Assembly. March 20, 1987. "Report of the World Commission on Environment and Development: Our Common Future; Transmitted to the General Assembly as an Annex to document A/42/427 - Development and International Co-operation: Environment; Our Common Future, Chapter 2: Towards Sustainable Development; Paragraph 1". United Nations General Assembly. Retrieved 1 March 2010. IN WIKIPEDIA, *Sustainability*.

Available at: http://en.wikipedia.org/wiki/Sustainability#cite_note-7. [accessed 13 January 2014].

Appendix 6 (cont.)

CATEGORY	DIMENSION	DEFINITION
GOALS (OUTCOMES) (cont.)	Health Status (cont.)	<i>Well-being</i> reflects the level of physical, mental and social well-being of individuals and of populations as it relates to material conditions, quality of life and sustainability of well-being over time.” ⁵⁹⁸
	Determinants of Health (and Risk Factors)	Determinants of health are: i. “Those that shape individuals’ and families’ socio-economic position, such as income and social status, education and literacy, and gender and ethnicity.” ⁵⁹⁹ ii. <i>Biological</i> factors include genetic endowment, aging processes and sex-related biology; <i>Material circumstances</i> include the characteristics of neighbourhoods, homes, workplaces and the physical environment; <i>Psychosocial circumstances</i> include stress, an individual’s sense of control and a person’s social support networks; <i>Behavioural factors</i> include smoking, physical exercise and diet and nutrition. ⁶⁰⁰

⁵⁹⁸ OECD. *OECD Health Systems Paper*. Paris: 2012. Canadian Institute for Health Information. 2013. *A Performance Measurement Framework for the Canadian Health System*. Ontario: Canadian Institute for Health Information, pg. v.

⁵⁹⁹ Canadian Institute for Health Information. 2013. *A Performance Measurement Framework for the Canadian Health System*. Ontario: Canadian Institute for Health Information, pg. 5.

⁶⁰⁰ Canadian Institute for Health Information. 2013. *A Performance Measurement Framework for the Canadian Health System*. Ontario: Canadian Institute for Health Information, pg. v

Appendix 6 (cont.)

CATEGORY	DIMENSION	DEFINITION
GOALS (OUTCOMES) (cont.)	Social Protection	<p>“The public actions taken in response to levels of vulnerability, risk and deprivation which are deemed socially unacceptable within a given polity or society.”⁶⁰¹</p> <p>Social protection thus deals with both the absolute deprivation and vulnerabilities of the poorest, and also with the need of the currently non-poor for security in the face of shocks and life-cycle events.</p> <p>The ‘public’ character of this response may be governmental or non-governmental, or may involve a combination of institutions from both sectors.</p>
CONTEXT	Socio-demographics	<p>“Relating to, or involving a combination of social and demographic factors.”⁶⁰²</p>

⁶⁰¹ Norton A, Conway T, Foster F. Working Paper 143. Social Protection Concepts and Approaches: Implications for Policy and Practice in International Development. February 2001. Overseas Development Institute, London (<https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/2999.pdf>).

⁶⁰² Sociodemographic." *Merriam-Webster.com*. Merriam-Webster, n.d. Web. 12 June 2014. <<http://www.merriam-webster.com/dictionary/sociodemographic>>.

Appendix 7

Feedback from National Health System Strategy Workshop

Feedback received from NHSS workshop on HSPA
21st February 2014

Report compiled by Rapporteurs on:
Workshop 5: HSPA: A TOOL FOR CONTINUOUS IMPROVEMENT

Chair: Dr Neville Calleja
 Rapporteurs: Dr Kenneth Grech, Dr Maya Podesta

Workshop 5:	
Theme	Summary of discussion
Universal coverage and social justice	<ul style="list-style-type: none"> • More money needs to be channelled to health, which should remain free. • We are living in an emotional society, thus we need to spend more money.
Inclusion & scoring of performance indicators	<ul style="list-style-type: none"> • Impact of disease criterion should have been given a higher percentage (60-20-20) as this is the most patient-centred. • Expenditure values should also be considered/ included. Inequalities in areas covered by indicators might be evident according to health expenditure. • The availability of indicators is important for benchmarking. • The introduction of new services must also be considered. We cannot measure something that isn't there, but needs to be introduced. • An indicator/domain to measure our health package may be a good idea. • Health promotion indicators/domain should be given more importance. • Detailed definitions of indicators should be provided as metadata for the consultation survey (scoring of indicators).

Appendix 7 (cont.)

Workshop 5:	
Theme	Summary of discussion (cont.)
Inclusion & scoring of performance indicators (cont.)	<ul style="list-style-type: none"> • Socio-economic indicators are needed. These should either be included or factored into indicators. Education level and housing are important. Those with low educational levels and poor housing may not have access to the health care system. • Availability of medical equipment should be included. • Bed occupancy and efficiency are good indicators: Results can then be used to report on whether beds are being used in the right way. • Key clinical indicators as proxy indicators for operational performance and use of care pathways, e.g. time for cardiac patient to take troponin. Care pathways should be established across the board, in a way that they can be measured at ground level, and feed up into the system. • Indicators should also be chosen relating to specified age-related issues: how the system is catering for specific groups e.g. cataracts extractions for the elderly. • Community acquired pneumonia is a good indicator of health and the health system. • Robust data collection systems are needed in some cases, data input and storage is essential, as is its quality. • Licensing and accreditation should be kept apart from the HSPA process. • Customer satisfaction needs to be given more importance as it is related to the quality of health care. • Patient safety is difficult to measure, but international standards should be adopted.

Appendix 7 (cont.)

Workshop 5:	
Theme	Summary of discussion (cont.)
Relevance of the HSPA	<ul style="list-style-type: none"> • The aim is for a system of assessment that is periodic and that will provide for an assessment of the outcome of investment into the health system. • The strong focus being placed on a health systems performance assessment framework (HSPA) within the NHSS is very positive. • This performance assessment framework should indeed be developed locally and not imported, with KPI's and related benchmarks that are wholly applicable to our unique local setting. The HSPA needs to have: <ul style="list-style-type: none"> a) Realistic and relevant indicators, and b) Adequate reliability and validity checks, to be truly effective. <p>Today's NHSS consultation is being viewed as indeed working towards achieving a vital and excellent HSPA.</p> • Training will be required and a structured plan for persons carrying monitoring and reviewing duties. Without evaluating and recommending changes and acting on these changes the way forward will still remain a little unclear.
The HSPA Policy Cycle	<ul style="list-style-type: none"> • Health systems, performance measurement, monitoring and evaluation to perhaps include: (i) outcomes – that need to be monitored as part of national health policy; (ii) exposures – exposure to risk of health determinants (iii) health system response – strategies screening, policies, services etc. • Policy feeds to strategy which feeds to HSPA. • Hence, HSPA needs to have convincing indicators that detect changes at ground level that bring the desired improvements.

Appendix 7 (cont.)

Workshop 5:	
Theme	Summary of discussion (cont.)
<p>The logic of health systems analysis / health system framework</p>	<ul style="list-style-type: none"> • Equity in access and coverage - perhaps one needs to take into consideration: (i) access to essential medicines especially to the low and low to middle income; (ii) poverty; (iii) social determinants; (iv) our guiding values and principles as a Maltese society; (v) reducing health inequities; (vi) sustainability; and (vii) environmental factors. • Legal and regulatory - perhaps one needs to take into consideration: (i) environmental factors that affect directly or indirectly health such as tobacco, air quality, noise pollution; and (ii) legal and regulatory strengthening of current legislations to meet emerging trends and their effective monitoring and re-enforcement. • Financial risk protection - perhaps one needs to take into consideration the social aspect to this dimension. • Service provision - perhaps one needs to take into consideration two aspects: (i) reducing waiting lists therefore the need to establish a maximum standard for waiting for specific services in policies and / or strategies; (ii) and the fact that private providers are used by poor as well as rich people alike (with regards to access and continuum of care). • Access, quality, efficiency and effectiveness - one needs to highlight safety issues. • Does demographic / epidemiology incorporate information, surveillance, research and development, national information systems, reporting, methods, tools standards, tracking performance, synthesis, analysis, obligations etc.? • Resource generation and allocation - to perhaps include training and education.

Appendix 7 (cont.)

Workshop 5:	
Theme	Summary of discussion (cont.)
Other Comments	<ul style="list-style-type: none">• Medicinal products, vaccination, equipment, technologies, procurement, options.• Strengthening public health and primary health care as part of strengthening health systems.• Everyone's rights and responsibilities towards health, health living, health services access / utilisation.

Appendix 8

List of national vertical strategies and plans in Malta

National Cancer Plan

National Non-Communicable Diseases Strategy

Health Vision 2000

Healthy Weight for Health Life (Obesity) Strategy

Primary Care Services Plan

TB Plan

Access & Efficiency Measures

Occupational Health and Safety Strategy

National Sexual Health Policy

National Dementia Strategy

National Plan on Eating Disorders

National Environmental Health Action Plan

Mental Health Services Plan

Child poverty & social exclusion

Perinatal Health Services

~National Diabetes Strategy (Draft)

*Communicable Disease Strategy (Draft)

~National Diabetes Strategy was still in draft form at the time of extraction of indicators.

**Indicators from this strategy were extracted at a later stage of the process*

Appendix 9

Candidate indicators with scores

Filtered list of ‘candidate’ indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
1	Birth induction rate	97.5	5.0678	4.7895	5.0943
2	Mode of delivery by parity, plurality, presentation, previous Caesarian section and gestational age.	97	5.0000	4.8824	4.8050
3	5 year cancer survival rates (breast, colorectal, prostate, lung, cervical)	90	6.2879	5.7143	6.6625
4	Response rate to screening programmes (eg. breast cancer screening, colorectal, [cervical] screening)	87.5	6.0000	5.2381	5.5989
5	Mortality & premature death rates (due to cardiovascular diseases)	87.5	5.8000	5.9048	6.4042
6	Infant mortality rate (by gestational age, birth weight and plurality.)	87.5	5.8710	5.6190	6.0171
7	All-cause mortality rate	86.5	5.8125	5.9048	6.4313
8	Standardised incidence rates of cancer (breast, colorectal, prostate, lung, cervical)	86.5	5.9403	5.7619	6.4754
9	All-cause premature mortality rate	85.5	6.1231	6.2381	6.6500
10	Maternal mortality ratio	85.5	5.9833	5.6667	6.2708

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

Appendix 9 (cont.)

Filtered list of ‘candidate’ indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
11	Multiple birth rate by number of fetuses.	84	5.1967	5.0000	5.2679
12	Perinatal mortality rate (by gestational age, birth weight and plurality)	83	5.9333	5.5714	6.2550
13	Fatal accidents at the place of work/fatality rates (per economic sector)	82.5	5.1818	5.4286	5.3474
14	Child mortality rate (1-14 years) (per 100,000 population)	82	5.9545	5.8095	6.4058
15	Standardised mortality rate of cancers (breast, colorectal, prostate, lung, cervical)	82	5.8636	5.8095	6.3750
16	Acute hospital bed-occupancy rates by sector	79	6.1045	6.1905	6.2250
17	Rate of road traffic fatalities per year (per 100,000 population)	78	4.7879	4.9500	5.0788
18	Admission to age and gender appropriate settings/wards in a mental health institution	77	5.2769	5.3810	4.2543
19	Mortality rate due to tobacco (Smoking related deaths)	76	5.8806	6.1905	5.7021
20	Incidence rate of AIDS (per 100,000 population)	76	5.8769	5.5238	6.1946

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

Appendix 9 (cont.)

Filtered list of ‘candidate’ indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
21	Ratio of GPs to hospital specialists	75.5	5.1515	4.4762	4.5850
22	Annual death rate (per 100,000 population) in patients, who have as primary or secondary cause of death, diabetes mellitus, adjusted for standard European population.	75	5.7576	5.4286	5.8257
23	Incidence of MRSA Hospital Acquired Infection/1000 admissions	75	6.3235	6.2857	6.1500
24	Percentage of self-referrals to A&E	74	5.6462	5.7619	5.2438
25	Waiting times for appointment at out-patient clinics (from date of request)	74	6.0299	5.8571	5.5563
26	Pharmaceutical expenditure per capita by disease category (eg. oncology, diabetes)	73	5.6364	5.0476	4.6483
27	Annual incidence of amputations above the ankle	73	5.2540	5.2381	5.2429
28	Hospital average length of stay (acute, mental and rehabilitation hospitals)	73	5.7612	5.7619	5.5875
29	Distribution of gestational age by vital status and plurality	73	4.9649	4.6316	4.8519
30	Distribution of maternal age	73	4.8889	4.5714	5.3004

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

Appendix 9 (cont.)

Filtered list of ‘candidate’ indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
31	Percentage of infants fully vaccinated against pertussis, diphtheria, tetanus and polio by first birthday, against MMR by second birthday.	72.5	6.0469	5.8000	5.8563
32	TB multi-drug resistant case notification rate ⁶⁰³	71.5			5.6957
33	Percentage of new borns weighing 4kg or over	71	5.0968	4.9444	4.4333
34	Hospital readmissions rates by category (eg. psychiatric, medical)	71	5.9265	5.6667	5.2925
35	Distribution of Apgar score at 5 minutes	71	5.3636	4.8235	5.1314
36	30-day in-hospital mortality rate for specific clinical conditions (eg. MI, stroke).	70.5	5.6515	5.5238	5.4010
37	Number of hospital beds (acute, palliative, rehabilitation, long-term care, dementia) per 100,000 population.	70	6.0448	5.8095	6.0063
38	Medical specialists per 100,000 population	70	5.4242	5.1429	5.1500
39	Distribution of birth weight by vital status, gestational age and plurality.	70	5.0678	4.7368	5.5086

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

⁶⁰³ This indicator was inadvertently not scored by the practitioners and academics and was subsequently combined with Indicator No. 48.

Appendix 9 (cont.)

Filtered list of ‘candidate’ indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
40	Prevalence of diabetes mellitus per 1,000.	69.5	5.8438	5.7619	5.4786
41	Annual incidence of dialysis and/or transplantation (renal replacement therapy) in patients with diabetes.	69.5	5.5313	5.2857	5.5890
42	Annual incidence of Type 1 diabetes in children between 0-14 years of age at diagnosis (clinical) per 100,000 children.	69	5.5397	4.7143	5.6648
43	Prevalence of smoking in males and females >15yrs	69	5.6765	5.6190	5.6217
44	Average waiting time for admission to long-term care facility.	68.5	5.7910	5.6190	5.2813
45	Availability of diagnostic and therapeutic infrastructure (MRI, CT etc.)	68.5	6.0152	5.7619	6.0063
46	Annual incidence of stroke in patients with diabetes.	68.5	5.6719	5.3333	5.7771
47	Rate of accidents at the place of work.	68	5.1061	5.2500	4.9995
48	TB incidence rate	68	5.6000	5.5238	6.2296

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

Appendix 9 (cont.)

Filtered list of ‘candidate’ indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
49	Ratio of discharges from hospitals to community care to discharges to long-term care facilities in the elderly population.	67.5	5.7424	6.0000	5.1500
50	Road traffic accidents (all outcomes) by age and means of transport.	67.5	4.9091	4.9048	4.6779
	MEAN SCORES FOR 3 GROUPS		5.4688	5.2000	5.2679
51	Prevalence of adults with diabetes, hypertension, hypercholesterolaemia by age and gender.	67	5.9242	6.2381	6.0008
52	Number of persons on waiting list for admission to long-term care.	66.5	5.6716	5.5714	4.4938
53	Avoidable hospital admission rate for specific diseases (eg. asthma, diabetes, congestive heart failure, COPD)	66.5	6.0606	5.9524	4.9754
54	Prevalence of cerebral palsy	66	5.3492	5.1500	5.0938
55	Ratio of emergency attendances to Health Centres vs Accident & Emergency department.	65	5.9077	5.2857	4.8313
56	Number of persons benefitting from entitlement to free medicines.	65	5.5909	5.1905	4.8750

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

Appendix 9 (cont.)

Filtered list of ‘candidate’ indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
57	Waiting times for out-patient based investigations (eg. Angiograms, MRI, ultrasound, CT scan)	65	5.9403	5.3333	5.6338
58	Annual incidence of myocardial infarction in patients with diabetes.	65	5.6557	5.3810	5.4871
59	Number of discharges per 1000 population due to stroke, MI by gender and age.	65	5.3906	5.1429	5.3604
60	Incidence rate of HIV per 100,000 population.	65	5.8769	5.4762	6.0571
61	Incidence of measles, per 100,000 population.	65	5.4688	5.1000	5.4058
62	Average waiting time for transfer to rehabilitation facility	64.5	5.7761	5.3333	5.4683
63	Oncology waiting times (eg. outpatients, surgery, radiotherapy, chemotherapy)	64.5	6.1343	5.9524	5.5229
64	Number of children found to have developmental problems and disorders per 100,000 population.	64.5	5.4308	5.6316	4.7188
65	Standardised death rate per 100,000 population for bronchitis/emphysema/asthma.	64.5	5.6563	5.1905	5.7021

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

Appendix 9 (cont.)

Filtered list of ‘candidate’ indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
66	Deaths caused by suicide per 100,000 population (by gender and age-group including 15-24 years old.)	64	5.0308	5.1429	4.8875
67	Portion of patients treated with insulin among patients with diabetes.	64	5.1774	4.8571	4.4929
68	Incidence of Hepatitis B, per 100,000 population.	64	5.7846	5.3810	6.1350
69	Incidence of legionellosis, per 100,000 population.	64	5.5714	5.0000	5.3392
70	Rate of use of anticholinergic antidepressant drugs among elderly patients.	62	5.0000	4.6111	4.1150
71	Rate of work-related absenteeism	62	5.1940	5.1579	3.9076
72	Percentage of all pregnancies following treatment for sub-fertility.	62	5.1311	4.6842	4.3829
73	Number of vaccine preventable diseases covered by the national vaccination programme.	61.5	5.8281	5.5238	5.4104
74	Length of treatment for substance-related disorders	61	5.0161	4.6316	4.3050
75	Case management rate for severe psychiatric disorders	61	5.4286	4.8000	3.9491

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

Appendix 9 (cont.)

Filtered list of ‘candidate’ indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
76	Rate of hospital admissions with hip fractures by gender	61	5.0000	5.4286	5.2667
77	Percentage overweight and obesity from self-reported BMI by age group (over 15yr olds).	60.5	5.4697	5.8095	5.4075
78	Teenage pregnancy rate	60.5	5.2656	5.2000	5.4471
79	Percentage of health budget allocated to public health incl. preventive services.	60	6.0303	5.4762	5.9000
80	Incidence of Hepatitis A, per 100,000 population	60	5.5846	4.8095	5.6008
		60% Pass mark			
81	Proportion of people reporting not having accessed medical services due to cost, distance, or waiting times (unmet self-declared need for medical care) (by age-groups, including 15-25 year olds).	58.5			
82	Prevalence of dementia	58.5			
83	Number of multidisciplinary care teams by category (eg. mental health, rehabilitation, oncology).	58.5			

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

Appendix 9 (cont.)

Filtered list of ‘candidate’ indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
84	Number of visits to GPs per capita	58			
85	Pure alcohol intake in ltrs per capita	58			
86	Rate of children/schools covered by screening/surveillance services.	58			
87	Rate of mental hospital discharges requiring follow-up appointments within 7 days and within 30 days.	58			
88	Percentage of babies breastfed on discharge from hospital and at 6 months of age.	58			
89	Number of implemented clinical guidelines and care pathways by category (eg. MI, TB).	58			
90	Incidence of mumps, per 100,000 population.	58			
91	Rate of admissions to palliative care unit.	57.5			
92	Response rate to HPV vaccination programme.	57.5			

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

Appendix 9 (cont.)

Filtered list of ‘candidate’ indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
93	Waiting times for in-patient based investigations (eg. angiogram, MRI, ultrasound, CT scan)	57			
94	Percentage of young persons aged 15-24 reporting >3 hours of physical activity per week.	57			
95	Portion of diabetic patients treated with insulin in combination with oral anti-diabetic drugs.	56.5			
96	Portion of diabetic patients also on lipid lowering medication	56			
97	Percentage of requests for mental health crisis intervention team satisfied within x number of hours.	56			
98	Rate of work-related injury benefit claims	56			
99	Expenditure ratio of primary to secondary/tertiary care	55.5			
100	Waiting time to see specialist in dementia	55.5			
101	Daily consumption of fruit and vegetables	55.5			

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

Appendix 9 (cont.)

Filtered list of ‘candidate’ indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
102	Number of deaths according to place of death	55			
103	Portion of Type 2 diabetic patients on oral anti-diabetic drugs, and distribution of drug types.	55			
104	Portion of diabetic patients also on anti hypertensive treatment.	55			
105	Percentage of patients with most recent HbA1c level >7.5 and 9.0 (poor control).	55			
106	Frequency of moderate and vigorous physical activity in adults and children according to age-group.	55			
107	Rate of current smokers among diabetic patients	54.5			
108	Percentage of chronic mental health patients receiving a holistic review at least once a year.	54.5			
109	Percentage of 13 year olds above the 95th weight chart centile.	54.5			
110	Rate of children who smoke and daily cigarette smokers among those aged 15 to 24.	54			

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

Appendix 9 (cont.)

Filtered list of ‘candidate’ indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
111	Annual incidence of blindness among patients with diabetes who are reviewed.	54			
112	Incidence of E. Coli infections (VTEC, STEC, EHEC), per 100,000 population.	54			
113	Incidence rate of influenza per 100,000 population.	54			
114	Percentage of diabetic patients with one or more HbA1c tests during the last 12 months.	53			
115	Percentage of diabetic patients with BMI >30 kg/m2	53			
116	Percentage of diabetic patients ever having had eye laser treatment.	52.5			
117	Portion of diabetic patients enrolled in structured Disease Management Programmes (DMP).	52			
118	Prevalence of end-stage renal disease among diabetic patients.	52			

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

Appendix 9 (cont.)

Filtered list of ‘candidate’ indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
119	Alcohol consumption rates and drinking patterns in general population by age-group.	52			
120	Prevalence of caries (mean number of decayed, missing and filled teeth (DMFT) in 5 and 12 year olds.	52			
121	Percentage of emergency admissions admitted to MDH holding areas.	51.5			
122	Percentage of mental health patients receiving in-patient treatment vs treatment in the community.	51.5			
123	Time allocated to physical activity per week in primary schools.	51.5			
124	Percentage of young people aged 15 to 24 reporting substance use, harmful alcohol consumption and unprotected sexual intercourse.	51			
125	Stage at which dementia medication started.	51			
126	Percentage of diabetic patients with one or more total cholesterol/HDL tests during the last 12 months.	51			

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

Appendix 9 (cont.)

Filtered list of ‘candidate’ indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
127	Percentage of diabetes patients who received a dilated eye examination or evaluation of retinal photography by a trained caregiver within the last 12 months.	51			
128	Percentage of diabetes patients receiving at least one foot examination within the last 12 months.	51			
129	Prevalence of alcohol use among 15 and 16 year olds during the previous 12 months.	51			
130	Time between admission and surgical procedure for hip fracture.	51			
131	Incidence of syphilis, per 100,000 population	51			
132	Percentage of diabetic patients with serum creatinine tested in the last 12 months.	50.5			
133	Waiting times for emergency care	49.5			
134	Percentage of patients with at least one test for microalbuminuria during the measurement year or who had evidence of medical attention for existing nephropathy.	49.5			
135	Number of referrals to specialised multidisciplinary team	49			

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

Appendix 9 (cont.)

Filtered list of ‘candidate’ indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
136	Consumption of sweets (candy and chocolate) (HBSC)	49			
137	Waiting time for admittance into dementia long term care units	48			
138	The prevalence of the self-reported and the measured hypercholesterolaemia in Maltese adults (HIS) and (EHES 2010).	48			
139	Incidence of chlamydia, per 100,000 population.	48			
140	Waiting times at the MDH A&E Department	47.5			
141	Percentage of patients with diabetes and one or more blood pressure measurements within the last 12 months.	47.5			
142	Percentage of patients with clinically diagnosed CVD and diabetes who are treated with antiplatelet therapy.	47			
143	Rates and patterns of alcohol consumption among 13 to 15 year olds (HBSC).	47			
144	Age at diagnosis by 10 year age bands (incidence)	46			
145	Annual admissions to mental hospital and acute psychiatric unit.	46			

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

Appendix 9 (cont.)

Filtered list of ‘candidate’ indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
146	Percentage of care plans which are adequately followed and appropriately documented.	46			
147	Incidence of campylobacteriosis, per 100,000 population	46			
148	Incidence of salmonellosis, per 100,000 population	46			
149	Percentage of elderly persons receiving community care. (eg Home help, Meals on Wheels, Handyman service etc.)	45			
150	Body Mass Index (BMI) in women of reproductive age (20-40 years).	45			
151	Number of investigations ordered by private and public GPs	44.5			
152	Average number of insulin injections per day in insulin treated patients.	44			
153	Average number of antihypertensive agents used per diabetes patient with anti hypertensive treatment.	44			
154	Rate of persons with dementia admitted to acute hospitals.	43.5			
155	Percentage of emergency operations being performed during the day (as opposed to evenings and nights).	43			

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

Appendix 9 (cont.)

Filtered list of ‘candidate’ indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
156	Percentage of patients with Total-Chol / HDL-Chol < 4.5	43			
157	Percentage of patients with most recent blood pressure <140/90 mmHg.	42.5			
158	Rate of contraception usage amongst teenagers.	42.5			
159	Number of children with asthma - Schedule V; Number of young persons aged 15-24 yrs suffering from asthma / using asthma medication – EHIS.	42			
160	Portion of diabetic patients treated with diet only.	42			
161	Percentage of individuals who drive under the influence of alcohol (HIS).	42			
162	Diabetics with former or current foot ulceration.	41			
163	Percentage of population reporting bad or very bad health by environmental exposure in Malta [EQLS].	41			
164	Ratio of arthritis in Maltese population (HIS) in comparison with number of total knee and hip replacements carried out by age group (NHIS, DHIR).	41			

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

Appendix 9 (cont.)

Filtered list of ‘candidate’ indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
165	Percentage of Maltese population reporting having had a mental disorder at some point in their life (HIS 2008).	41			
166	Percentage of diabetes patients whose smoking status was ascertained and documented within the last 12 months.	40.5			
167	Number of persons with dementia admitted for rehabilitation and discharge to the community.	35.5			
168	Percentage of patients with diabetes performing self-monitoring of blood glucose/urine testing.	34			
169	Daily consumption of fruit and vegetables.	19			
170	Number of school/children benefitting from school fruit and vegetable scheme.	19			
171	Number of GPs trained in the use of cognitive assessment tools.	19			
172	Percentage of patients with diabetes specific education at least once before.	19			
173	Number of readmissions to institutional care	19			
174	Percentage weight change	19			

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

Appendix 9 (cont.)

Filtered list of ‘candidate’ indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
175	Number of consent forms duly filled and signed	19			
176	Number of staff members attending training related to their line of work.	19			
177	Mortality rates for persons with psychiatric disorders	19			
178	Percentage of Maltese 16 year olds abusing addictive substances (ESPAD 2007).	19			
179	Prevalence of self-reported chronic depression and chronic anxiety by gender and age group (HIS 2008).	19			
180	Occupational injury and illness rate (number of injuries per 100,000 employees)	19			
181	Distribution of mothers' prepregnancy BMI	19			
182	Percentage of TB patients for whom HIV status is known	19			
183	Incidence of invasive pneumococcal disease (per 100,000 population).	19			
184	Exposure to indoor tobacco smoke.	18			

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

Appendix 9 (cont.)

Filtered list of ‘candidate’ indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
185	Weight at birth of <2500g - from NOIS.	18			
186	Young people (aged 15-24) with depressive syndrome / mental illness - from EHIS.	18			
187	Percentage with microalbuminuria in last 12 months (among those who have been tested).	18			
188	Rate of patients with current alcohol abuse/dependence.	18			
189	Crude mortality rate (per 100,000) from fatal falls by age group, year and gender among Maltese residents (DHIR).	18			
190	Consumption of coke and soft drinks with sugar (HBSC).	18			
191	Percentage of children who smoke and their smoking habits (ESPAD).	18			
192	Percentage of school children who smoke (HBSC)	18			
193	Hospitalisation costs due to work related injuries/illnesses.	18			
194	Incidence of severe maternal morbidity.	18			

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

Appendix 9 (cont.)

Filtered list of 'candidate' indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
195	Percentage of TB cases tested by drug sensitivity testing for first-line drugs.	18			
196	Proportion of 'group practices' / multi-disciplinary teams versus solo practices.	17.5			
197	Percentage of HIV patients for whom TB status is known.	17.5			
198	Number of patients 'linked' to (registered with) a GP.	17			
199	Percentage of pregnant mothers smoking.	17			
200	Exposure to PM10 particles.	17			
201	Number/rate of children living in a household at risk of poverty/severely materially deprived (<60% of national median equivalised disposable income) - from SILC.	17			
202	Self-reported health status by financial capacity and ability to afford home heating in Malta (EQLS).	17			
203	Number of women with IGT/diabetes prior to commencement of or during pregnancy (NOIS).	17			
204	Number of occupational health and safety officers (per 100,000 population).	17			

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

Appendix 9 (cont.)

Filtered list of ‘candidate’ indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
205	Incidence of tears to the perineum.	17			
206	Frequency of unprotected sexual intercourse in persons reporting more than one partner in the past 12 months.	17			
207	Incidence of STIs [IDCU registers] (syphilis, gonorrhoea, chlamydia)	17			
208	Percentage of new pulmonary TB cases confirmed by culture	17			
209	Young people not in employment, education or training (aged 15-19) - from Eurostat LFS.	16			
210	Percentage of the population reporting infrastructural housing problems by chronic health conditions (EQLS).	16			
211	Percentage of adults exposed to tobacco in public spaces, transport and place of work (HIS).	16			
212	Percentage of mothers who consume alcohol during pregnancy (NOIS).	16			
213	Lifetime prevalence of asthma in children aged 6-7 years and 13-14 years (ISAAC study, 2003).	16			
214	Lifetime prevalence of asthma as reported by adults (HIS).	16			

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

Appendix 9 (cont.)

Filtered list of ‘candidate’ indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
215	Fluoride concentration in the water supply (WSC/DEH).	16			
216	Hospitalisation admissions due to work-related injuries/illnesses.	16			
217	Number of OHS assessments at the place of work.	16			
218	Number of non-compliances per workplace visit.	16			
219	Prevalence of selected congenital anomalies.	16			
220	Fetal and neonatal deaths due to congenital anomalies.	16			
221	Number of self-referrals for screening for TB.	15.5			
222	Waiting times for community mental health clinics.	15			
223	Percentage of pregnant mothers smoking.	15			
224	Number/rate of preventable incidents at the place of work.	15			

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

Appendix 9 (cont.)

Filtered list of ‘candidate’ indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
225	Knowledge and level of awareness relating to sexual health (SHQ).	15			
226	Number of persons using helpline and assisted technologies.	14.5			
227	Age at first sexual intercourse (HBSC).	14.4			
228	Enrollment of professionals and public to myHealth.	14			
229	New Client Index.	14			
230	Incidence of oral mucosal malignant lesions and tumours (Malta Cancer Registry).	14			
231	How (by whom, at what age, where, what resources were used) is knowledge about a number of issues related to sexual behaviour and sexuality obtained? (SHQ)	14			
232	Maternity statistics: Unintended pregnancies (NOIS)	14			
233	Percentage of women who smoked during pregnancy.	13.5			
234	Number of careworkers specialised in youth care.	13			

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

Appendix 9 (cont.)

Filtered list of ‘candidate’ indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
235	Crude mortality rate (per 100,000 population) for fatal accidental poisonings by age group, year and gender (DHIR).	13			
236	Annual household consumption expenditure on food and non-alcoholic beverages (%). (Household Budgetary Survey).	13			
237	Frequency of sexual intercourse under the influence of alcohol/drugs.	13			
238	Percentage of patients who have appointed a responsible carer in writing.	12			
239	Distribution of parity	11.5			
240	Number of doctors who regularly take care of diabetic patients in diabetes clinics in primary or secondary care (per 100,000 population).	11			
241	Number of diabetes nurses employed (per 100,000 population).	11			

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

Appendix 9 (cont.)

Filtered list of ‘candidate’ indicators as extracted from 17 national strategies (n=250), with internal and external scores.

No.	Indicator	~Internal score	*Practitioners' scores	*Academics' scores	*Experts' scores
242	Number of physicians who offer structured Disease Management Programme (DMP) participations to patients per 1000 patients with diabetes mellitus.	11			
243	Proportion of children cared for (by formal arrangements other than the family) as a proportion of all children in the same group.	10.5			
244	Data on most popular modes of travel in Maltese population (National Household Travel Survey, Transport Malta, May 2010).	10.5			
245	Distribution of parent's occupational classification.	10			
246	Number of court/judicial cases.	9			
247	Distribution of mother's educational level.	9			
248	Number of administrative fines and total amount.	7			
249	Number and cost of insurance claims.	6			
250	Number of accidents reported vs investigated.	0			

Notes: ~ scores expressed as % mark

* scores expressed on Likert Scale (1-7)

Appendix 10

Criteria and sub-criteria for scoring of indicators

Scoring criteria used to select indicators

Total marks – 100%

1. IMPORTANCE OF WHAT IS BEING MEASURED

1a. Impact of disease or risk on health and on health expenditure – 15%.

What is the impact on health and on health expenditure associated with each disease, risk or client group? The measure should address areas in which there is a clear gap between the actual and potential levels of health that can be influenced by improvements in the quality of care

1b. Policy importance – 10%.

Are policy makers and consumers concerned about this disease or risk group area?

1c. Susceptibility to being influenced by the health care system – 15%.

Can the health care system meaningfully address this disease area or problem? The measure should reflect an aspect of health that can be influenced by the health care system as it exists or as it is envisioned. That is, policy makers can take specific actions (generally at the structural or process level) to improve health care in that area and, ultimately, health status. Injuries caused by automobile accidents, for example, are the leading cause of death among young adults, but most remedies (for example, changing car design or reducing the speed limit) lie outside the influence of the health care sector.

2. FEASIBILITY OF OBTAINING INTERNATIONALLY COMPARABLE DATA FOR THE MEASURE

2a. Existence of prototype indicator -10%.

Is the measure in use? A further question is if the measure is in use at the national level, or for sub-national population groups.

Appendix 10 (cont.)

2b. Availability of internationally-comparable data across countries – 10%.

Can internationally-comparable information needed for the measure be collected for sufficient countries in the time frame required? At one extreme, a few indicators of the technical quality of health care can already be found for most countries in WHO/EU/OECD Health Data. At the other extreme, there will be many potential indicators for which few if any countries could provide any data in the foreseeable future. In between these extremes, there are likely to be some indicators for which data would be readily available at national level for a significant group of countries, but with variations in the precise definitions of numerators and denominators. There are likely to be other indicators for which national data has not yet been assembled (say, from local or clinical databases) and which could be put together according to a common definition only with considerable effort.

2c. Cost or burden of measuring indicator – 10%.

How much will it cost to collect the data needed for the measure?

3. SCIENTIFIC SOUNDNESS OF THE INDICATOR

3a. Validity – 10% - does the measure actually measure what it is intended to measure?

3b. Reliability – 10% - does the measure provide stable results across various populations and circumstances?

3c. Explicitness of the evidence base – 10% is there scientific evidence available to support the measure?

Appendix 11

Online survey

Screen shot of online survey for practitioners and academics to rate shortlisted indicators using Google Forms.

Example of one indicator: *'All Cause Mortality Rate.'*


Health System Performance Assessment Framework - Malta

*** Required**

All-cause mortality rate *

	1 (Least)	2	3	4	5	6	7 (Most)	Don't Know
Importance of the indicator to the Maltese Health System	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability and Comparability of the indicator	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Validity and Reliability of the indicator	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Submit 1% completed

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Appendix 12

Final list of performance indicators with ‘key owners’ of each indicator

Ref. no.	Performance indicator	Key owner by department
1	Five year cancer survival rates. (Breast, colorectal, prostate, lung, cervical).	Directorate of Health Information and Research
2	Response rate to screening programmes (e.g. breast cancer screening, colorectal, [cervical] screening).	National Cancer Screening Service
3	Standardised mortality rates (all-cause, cancers, cardiovascular disease, diabetes [as primary or secondary], smoking related).	Directorate of Health Information and Research
4	Maternal mortality ratio	Directorate of Health Information and Research
5	Standardised premature mortality rates (all-cause, cancers, cardiovascular disease, diabetes [as primary or secondary], smoking related).	Directorate of Health Information and Research
6	Standardised incidence rates of cancer. (Breast, colorectal, prostate, lung, cervical).	Directorate of Health Information and Research
7	Perinatal and infant mortality rates by gestational age, birth weight, and plurality.	Directorate of Health Information and Research
8	Fatal accidents at the place of work/fatality rates (per economic sector).	Occupational Health and Safety Authority
9	Child mortality rate (1-14 years) (per 100,000 population).	Directorate of Health Information and Research
10	Acute hospital bed-occupancy rates by sector.	Clinical Performance Unit, Mater Dei Hospital
11	Incidence rate of AIDS per 100,000 populations.	Directorate of Health Promotion and Disease Prevention
12	Incidence of MRSA hospital acquired infection/1000 admissions.	Infection Control Unit, Mater Dei Hospital
13	Percentage of self-referrals to A&E.	Clinical Performance Unit, Mater Dei Hospital
14	Waiting times for appointment at Out-patient Clinics (from date of request).	Clinical Performance Unit, Mater Dei Hospital
15	Hospital average length of stay. (Acute, mental and rehabilitation hospitals).	Directorate of Health Information and Research

Appendix 12 (cont.)

Ref. no.	Performance indicator	Key owner by department
16	Percentage of infants fully vaccinated against pertussis, diphtheria, tetanus and polio by first birthday, against MMR by second birthday.	Department of Primary Health Care
17	TB incidence and multi-drug resistant case notification rates.	Directorate of Health Promotion and Disease Prevention
18	Hospital readmissions rates by speciality. (e.g. psychiatric, medical).	Clinical Performance Unit, Mater Dei Hospital
19	30-day in-hospital mortality rate for specific clinical conditions (e.g. MI, stroke, hip fracture).	Clinical Performance Unit, Mater Dei Hospital
20	Number of hospital beds (acute, palliative, rehabilitation, long-term care and dementia) per 100,000 population.	Directorate of Health Information and Research
21	Annual incidence of Type 1 Diabetes in children between 0-14 years of age at diagnosis (clinical) per 100,000 children.	Department of Paediatrics, Mater Dei Hospital
22	Prevalence of smoking in males and females >15yrs.	Directorate of Health Information and Research
23	Waiting times for admission to public rehabilitation facility and to public long-term care facility.	Department for the Elderly
24	Availability of diagnostic and therapeutic infrastructure (MRI, CT etc.)	Directorate of Health Information and Research
25	Complications of diabetes - annual incidence rates of stroke, myocardial infarction, dialysis and/or renal transplantation in patients with diabetes.	Directorate of Health Information and Research
26	Ratio of discharges from public acute hospital to community care to discharges to long-term care facilities in the elderly population.	Clinical Performance Unit, Mater Dei Hospital
27	Prevalence of adults with diabetes, hypertension, hypercholesterolemia by age and gender.	Directorate of Health Information and Research
28	Avoidable hospital admission rate for specific diseases (asthma, diabetes, congestive heart failure, COPD).	Directorate of Health Information and Research

Appendix 12 (cont.)

Ref. no.	Performance indicator	Key owner by department
30	Waiting times for out-patient based investigations (Angiograms, MRI, ultrasound, CT scan), interventions (total knee replacement, total hip replacement, cataracts, varicose veins, inguinal hernias, chemotherapy, radiotherapy).	Clinical Performance Unit, Mater Dei Hospital
31	Incidence rate of HIV and Hepatitis B per 100,000 population.	Directorate of Health Promotion and Disease Prevention
32	Number of vaccine preventable diseases covered by the national vaccination programme.	Department of Primary Health Care
33	Percentage overweight and obesity from Self-reported BMI by age group (over 15 year olds).	Directorate of Health Information and Research
34	Percentage of health budget allocated to public health, including preventive services.	Directorate General Finance, Ministry of Health
35	Health expenditure as a percentage of GDP/per capita [pps].	National Statistics Office
36	General government health expenditure as a percentage of total government expenditure and percentage of total health expenditure.	National Statistics Office
37	Life expectancy and healthy life expectancy at birth and at over 65 years of age.	National Statistics Office
38	Amenable mortality/potential years life lost.	Directorate of Health Information and Research
39	Public expenditure as a percentage of GDP for hospitals, ambulatory services and long term care.	Directorate General Finance, Ministry of Health
40	Day case discharges as a percentage of total discharges.	Directorate of Health Information and Research
41	Numbers and ratios of all practicing doctors, GPs, specialists, and nurses & midwives per 100,000 inhabitants (GPs, specialists, nurses, physicians)	Superintendence of Public Health
43	GP contacts per capita.	Department of Primary Health Care
44	Public outpatient pharmaceuticals as a percentage of GDP.	Directorate General Finance, Ministry of Health
45	Generic share of pharmaceuticals in value/volume (public).	Central Procurement and Supplies Unit

Appendix 12 (cont.)

Ref. no.	Performance indicator	Key owner by department
46	Self-perceived general health (SILC) - income inequalities.	National Statistics Office
47	Unmet need (SILC) - income inequalities.	National Statistics Office
48	Percentage of population covered by public health insurance (tax-based, public health insurance and income tax, including social security contribution schemes).	National Statistics Office
49	Out of pocket health expenditure as a percentage of total health expenditure/private health expenditure.	National Statistics Office
50	Influenza vaccine coverage in 65+.	Directorate of Health Promotion and Disease Prevention
51	Frequency of population having 6 or more units of alcohol on one occasion.	Directorate of Health Information and Research
52	Fruit and vegetable consumption (EHIS).	Directorate of Health Information and Research
53	Percentage reporting >2.5 hours of physical activity per week - age/sex.	Directorate of Health Information and Research
55	Share of population 65+/80+, old age dependency (65+/15-64).	National Statistics Office
57	At risk of poverty or social exclusion.	National Statistics Office
58	Percentage of population 25-64 with low educational attainment (ISCED 0-2).	National Statistics Office
60	Hip fracture surgery initiated within 2 calendar days after admission to Mater Dei Hospital.	Clinical Performance Unit, Mater Dei Hospital
61	Proportion of population that accesses own health data online.	Information Management Unit
62	Rate per capita of prescriptions transacted online.	Information Management Unit

Appendix 13

Definitions of final list of indicators

INDICATOR 1: 5-YEAR CANCER SURVIVAL RATE

Definition:

‘The relative survival rate for cancer that is the proportion of patients who survive at least five years after diagnosis, after correction for background mortality.’

Calculation:

‘Relative survival rate is calculated as the observed rate of persons diagnosed with cancer surviving five years after diagnosis, divided by expected survival rate in the general population.’

INDICATOR 2: RESPONSE RATE TO SCREENING PROGRAMMES Breast Screening

Definition:

‘Proportion of women (aged 50-69) reporting to have undergone a breast cancer screening test within the past two years.’

Calculation:

‘Percentage of women aged 50-69 reporting to have had a breast examination by X-ray (i.e. mammography) within the past 2 years, derived from European Health Interview survey questions, PA.10 and PA.11: PA.10: Have you ever had a mammography, which is an X-ray of one or both of your breasts? Yes / No / Don’t know / Refusal; and PA.11: When was the last time you had a mammography (breast X-ray)? Within the past 12 months / More than 1 year, but not more than 2 years / More than 2 years, but not more than 3 years / Not within the past 3 years / Don’t know / Refusal.’

The ‘preferred data type is from the European Health Interview Survey (EHIS). In the future however, when the situation with regard to administrative based data has improved the European Community Health Indicators and monitoring project (ECHIM) prefers to use those data instead of EHIS. For comparability reasons ECHIM would prefer age-standardised data.’

‘Ideally, the recall period used in the definition for this indicator coincides with the recall period actually applied in the screening programmes, as in the definition applied by the Organisation for Economic Co-operation and Development (OECD). As a common methodology needs to be applied in EHIS for all countries, such a flexible approach is not possible in EHIS. The recall period used in the definition for this indicator therefore represents an average and hence it will not be aligned with the programme methodologies for all countries.’

Appendix 13 (cont.)

INDICATOR 2 (cont.)

Cervical screening

Definition:

‘Proportion of women (aged 20-69) reporting to have undergone a cervical cancer screening test within the past three years.’

Calculation:

‘Percentage of women aged 20-69 reporting to have had a cervical smear test (pap smear) within the last 3 years, derived from EHIS questions PA.13 and PA.14. PA.13: Have you ever had a cervical smear test? Yes / No; PA.14: When was the last time you had a cervical smear test? Within the past 12 months / More than 1 year, but not more than 2 years / More than 2 years, but not more than 3 years / Not within the past 3 years.’

‘The preferred data type for the moment is from EHIS. In the future however, when the situation with regard to administrative-based data has improved ECHIM prefers to use administrative- based data instead of EHIS. For comparability reasons ECHIM would prefer age-standardised data.’

‘Ideally, the recall period used in the definition for this indicator coincides with the recall period actually applied in the screening programmes. However, the recall periods applied in national cancer screening programmes differ. As a common methodology needs to be applied in EHIS for all countries, a flexible approach with country specific questions is not possible. The recall period used in the definition for this indicator therefore represents an average and hence it will not be aligned with the programme methodologies for all countries.’

Colorectal cancer screening

Definition:

‘Proportion of persons (aged 50-74) reporting to have undergone a colorectal cancer screening test in the past 2 years.’

Calculation:

‘Percentage of persons (aged 50-74) that have undergone a colorectal cancer screening test (faecal occult blood test) in the last 2 years, derived from EHIS questions: PA.16 and PA.17. PA.16: Have you ever had a faecal occult blood test? 1. Yes / 2. No; PA.17: When was the last time you had a faecal occult blood test? Within the past 12 months / More than 1 year, but not more than 2 years / More than 2 years, but not more than 3 years / Not within the past 3 years.’

Appendix 13 (cont.)

INDICATOR 2

Colorectal cancer screening (cont.)

‘Ideally, the recall period used in the definition for this indicator coincides with the recall period actually applied in the screening programmes. However, the recall periods applied in national cancer screening programmes differ. As a common methodology needs to be applied in EHIS for all countries, a flexible approach with country specific questions is not possible.

The recall period used in the definition for this indicator therefore represents an average and hence it will not be aligned with the programme methodologies for all countries.’

‘Administrative sources based on screening programme data would be preferable over (E)HIS based data, as the latter will be influenced by recall and sampling biases. Currently however there is no adequate international coverage of programme based data. Therefore for the moment EHIS is the best source available for this indicator. In the future however, when the situation with regard to programme based data has improved, ECHIM prefers to use those data instead of EHIS.’

INDICATOR 3:

STANDARDISED MORTALITY RATES

Definition:

‘Deaths caused by specific diseases or disease groups per 100,000 inhabitants.’

Calculation:

‘Number of deaths per 100,000 inhabitants (age-standardised rates). The (age-) standardised death rate is a weighted average of age-specific mortality rates. The weighting factor is the age distribution of a standard reference population. Standardisation is carried out through the direct method. The standard reference population used is the European standard population as defined by the World Health Organisation (WHO). The annual average population available in Eurostat's demography database is used to calculate the rates.’

INDICATOR 4:

MATERNAL MORTALITY RATIO

Definition 1: *‘The maternal mortality ratio is the number of women who die from pregnancy-related causes while pregnant or within 42 days of pregnancy termination per 100, 000 live births.*

Appendix 13 (cont.)

INDICATOR 4 (cont.)

Calculation:

'The data are estimated with a regression model using information on the proportion of maternal deaths among non-AIDS deaths in women ages 15-49, fertility, birth attendants and gross domestic product.'

Definition 2:

'The maternal mortality ratio is defined as the number of maternal deaths during a given time period per 100 000 live births during the same time period. It depicts the risk of maternal death relative to the number of live births.'

INDICATOR 5 STANDARDISED PREMATURE MORTALITY RATES

Definition:

'This measure is used to assess the age-standardised rate of premature deaths per 100,000 population younger than 75 years.'

Calculation:

'The numerator is the total number of deaths at age younger than 75 years and the denominator is the total mid-year population younger than age 75 years.'

INDICATOR 6 STANDARDISED INCIDENCE RATE OF CANCER

Definition:

'Total cancer incidence and incidence of the most important cancers, per 100,000 population, in a given year.'

Calculation:

'Number of patients with newly diagnosed cancer during a given calendar year divided by person-years at risk, expressed per 100,000 population. The age standardise incidence rate is calculated.'

CI5plus: Cancer incidence rates are age-standardised to the World Standard Population.

GLOBOCAN 2008: Cancer incidence rates are age-standardised to the World Standard Population 1960.

ECO 2008: Cancer incidence rates are age-standardised to the Standard European Population.

Appendix 13 (cont.)

INDICATOR 7

PERINATAL AND INFANT MORTALITY RATES BY GESTATIONAL AGE, BIRTH WEIGHT AND PLURALITY

Perinatal mortality rates

Definition:

‘The number of early neonatal deaths after live birth plus fetal deaths in a given year per 1000 live and stillbirths.’

Calculation:

‘The number of fetal deaths and deaths in the early neonatal period (up to 6 completed days after birth) after live birth, expressed per 1000 live and stillbirths in the same year. For international comparisons, it is recommended by the WHO that elements in both the nominator (fetal deaths and early neonatal deaths) and denominator (fetal deaths and live births) are restricted to fetuses and infants weighting 1000 grams or more.’

Infant mortality rate

Definition:

‘The number of deaths of infants (younger than one year of age at death) per 1000 live births (based on one year data).’

Calculation:

‘Number of deaths under one year of age (aged 0-364 days) in a given year, per 1000 live births in that year.’

INDICATOR 8:

FATAL ACCIDENTS AT PLACE OF WORK/FATALITY RATES PER ECONOMIC SECTOR

Definition and calculation:

‘Incidence rates relate the number of accidents to the reference population of persons in employment (persons exposed to the risk of accident at work). A fatal accident is defined as an accident, which leads to the death of a victim within one year of the accident. The incidence rate as defined by the European Statistics on Accidents at Work methodology is the number of accidents at work per 100 000 persons in employment. From an epidemiological point of view an incidence rate should relate the number of accidents to the working hours of the reference population. This approach would describe more precisely the relevant exposure as time under risk and therefore adjust for differences, e.g. with regard to different working hours or differences with regard to part-time employment.’

Appendix 13 (cont.)

INDICATOR 9

CHILD MORTALITY RATE (1-14 YEARS) PER 100 000 POPULATION

Definition: *‘Number of deaths per 1000 live births until 5 years of age or Probability of dying before 5 years per 1000 live births.’*

Calculation: *‘Number of deaths age 1-14 years divided by population in that age group per 100,000 population.’*

INDICATOR 10

ACUTE HOSPITAL BED OCCUPANCY RATES BY SECTOR

Definition and calculation:

*‘The occupancy rate is calculated as the number of beds effectively occupied (bed-days) for curative care divided by the number of beds available for curative care multiplied by 365 days, with the ratio multiplied by 100. Occupancy rate = Total number of bed-days during the year / (Number of beds available * 365 days) * 100.’*

INDICATOR 11:

INCIDENCE RATE OF AIDS PER 100,000 POPULATION

Definition: *‘Incidence of AIDS cases, in a given calendar year, per 100,000 population.’*

Calculation: *‘The rates are calculated as the number of newly diagnosed cases per 100,000 population, based on the number of cases reported by national surveillance systems to the joint WHO-Euro/ECDC database for AIDS surveillance in The European Surveillance System (TESSy). A case of AIDS is defined following the European AIDS surveillance case definitions.’*

Appendix 13 (cont.)

INDICATOR 12

INCIDENCE OF MRSA HOSPITAL ACQUIRED INFECTION PER 1000 ADMISSIONS

Definition of Hospital Acquired Infection (HAI):

‘An infection is considered an HAI if all elements of a CDC/NHSN (Centers for Disease Control and Prevention/National Healthcare Safety Networks) site-specific infection criterion were first present together on or after the 3rd hospital day (day of hospital admission is day 1). For an HAI, an element of the infection criterion may be present during the first 2 hospital days as long as it is also present on or after day 3. All elements used to meet the infection criterion must occur within a timeframe that does not exceed a gap of 1 calendar day between elements.’

INDICATOR 13

PERCENTAGE OF SELF-REFERRALS TO THE ACCIDENT AND EMERGENCY DEPARTMENT

Definition of Indicator 13:

Numerator:

Number of all referrals to the A&E Department where no ticket of referral by a GP or a Health Centre Doctor was presented at the A&E Reception on registration.

Denominator:

All A&E registrations during one year multiplied by 100 to obtain the percentage.

INDICATOR 14

WAITING TIMES FOR APPOINTMENTS AT OUT-PATIENT CLINICS FROM DATE OF REQUEST

The time taken between date of request of outpatient appointment until the actual appointment date. Data are available for all outpatient clinics.

Appendix 13 (cont.)

INDICATOR 15 HOSPITAL AVERAGE LENGTH OF STAY

Definition:

‘The average length of stay (ALOS) in days in a hospital per discharged in-patient, i.e. average duration of a single episode of hospitalization.’

Calculation:

‘ALOS is computed by dividing the total number of in-patient hospital days, in all hospitals, counted from the date of admission to the date of discharge by the total number of discharges (including deaths) in all hospitals during a given year.

A hospital day (or bed-day or in-patient day) is a day, during which a person admitted as an in-patient, is confined to a bed and stays overnight in a hospital.

Day-cases (patients formally admitted for a medical procedure or surgery in the morning and discharged before the evening) are excluded.

Patients admitted with the intention of discharge on the same day, but who subsequently stay in hospital overnight, are included.’

‘The preferred data type is from registers (administrative data sources, national hospital discharge registers). ECHIM does not require disaggregation by sex for this indicator, and only by two age groups (0-64 and 65+) to reduce the number of operationalisations.’

‘A (hospital) discharge is the formal release of a patient from a hospital after a procedure or course of treatment (episode of care). A discharge occurs anytime a patient leaves because of finalisation of treatment, signs out against medical advice, transfers to another health care institution or because of death.

Transfers to another department within the same institution are excluded. A discharge can refer to in-patients or day cases, but day treatment cases (day cases, patients admitted for a medical procedure or surgery in the morning and released before the evening) should be excluded.’

‘Discharges by diagnosis refer to the principal diagnosis, i.e. the main condition diagnosed at the end of the hospitalisation. The main condition is the one primarily responsible for the patient's need for treatment or investigation.’

Appendix 13 (cont.)

INDICATOR 16

PERCENTAGE OF INFANTS FULLY VACCINATED AGAINST PERTUSSIS, DIPHTHERIA, TETANUS AND POLIO BY 1ST BIRTHDAY AND AGAINST MMR BY 2ND BIRTHDAY

Definition:

‘Percentage of infants who have been fully vaccinated against important infectious childhood diseases.’

Calculation:

‘Percentage of infants reaching their 1st birthday in the given calendar year who have been fully vaccinated, according to national vaccination schemes, against pertussis, diphtheria, tetanus and poliomyelitis, and percentage of infants reaching their 2nd birthday in the given calendar year who have been fully vaccinated against measles, mumps and rubella.’

INDICATOR 17

TUBERCULOSIS INCIDENCE AND MULTIDRUG RESISTANT CASES NOTIFICATION RATES

Tuberculosis incidence

Definition:

‘Number of newly diagnosed tuberculosis cases, all forms (ICD-9:010-018; ICD-10: A15-A19) during the given calendar year. The definition has been modified in June 2001 version of Health for All Database. Now, relapses are included in the incidence figures (before relapses were excluded).’

Calculation:

The incidence of a disease per year is calculated as the total number of reported new cases of the disease in a specific year divided by the population of the country in question in the same year, expressed per 100 000 population.

Notification rate:

‘The numerator is the number of cases that are notified and the denominator is the total number of cases ascertained through use of supplemental data sources.’

Appendix 13 (cont.)

INDICATOR 18

HOSPITAL READMISSION RATES BY SPECIALITY

‘The 30-day readmission rate is defined as: the number of stays with at least one subsequent hospital stay within 30 days/the total number of hospital stays between January and November. That is, when a patient is discharged from the hospital (the index stay), they are followed for 30 days in the data. If any readmission to the same or a different hospital occurs during this 30-day time period, the index stay is counted as having a readmission. No more than one readmission is counted within the 30-day period since the outcome measure assessed here is "percentage of admissions with a readmission.”’

‘A readmission is a subsequent hospital admission in the same or a different hospital within 30 days following an original admission (or index stay). The discharge date for the index stay must occur between January and November to allow a 30-day follow-up period for all index stays. This approach captures an index stay with a discharge date in November and a readmission in December.’

INDICATOR 19

30-DAY IN-HOSPITAL MORTALITY RATE FOR SPECIFIC CLINICAL CONDITIONS

Definition:

‘Admission-based AMI and ischemic stroke 30-day in-hospital (same hospital) mortality rate. This indicator is defined as the age-sex standardised percentage of people aged 45+ who die within 30 days of being admitted to a hospital in a specified year with principal diagnosis of: a) acute myocardial infarction (AMI) or b) ischemic stroke.’

Calculation:

‘Numerator: the number of deaths in the same hospital that occurred within 30 days of hospital admission with a principal diagnosis of AMI / ischemic stroke in a specified year. Denominator: the number of patients admitted to a hospital with a principal diagnosis of AMI / ischemic stroke in a specified year, including same day admissions. AMI diagnostic codes: ICD-10: I21, I22; ICD-9: 410. Ischemic stroke diagnostic codes: ICD-10: I63-I64; ICD-9: 433, 434, 436. The indicator is age-sex standardised according to 2005 OECD population (45+). Therefore 5-year age specific numerators and denominators are needed, separate for men and women: 45-49, 50-54...85+.’

Appendix 13 (cont.)

INDICATOR 20 NUMBER OF HOSPITAL BEDS

Definition:

‘Number of hospital beds per 100,000 inhabitants.’

Calculation:

‘The total number of hospital beds in a given calendar year by 31 December divided by the end of year population expressed per 100,000 inhabitants. Total hospital beds are all hospital beds which are regularly maintained and staffed and immediately available for the care of admitted patients. Both occupied and unoccupied beds in general hospitals, mental health and substance abuse hospitals and other specialty hospitals are included.’

INDICATOR 21 ANNUAL INCIDENCE OF TYPE 1 DIABETES IN CHILDREN BETWEEN 0-14 YEARS OF AGE AT CLINICAL DIAGNOSIS PER 100,000 CHILDREN*

Definition:

Number of children between 0 – 14 years of age with newly diagnosed Type 1 diabetes during a given calendar year.

Calculation:

The rates are calculated as the number of newly diagnosed cases per 100,000 population.

*(*Note: Definition not yet validated)*

INDICATOR 22 PREVALENCE OF SMOKING IN MALES AND FEMALES MORE THAN 15 YEARS OF AGE

Definition:

‘Percentage of regular daily smokers in the population, age 15+.’

Calculation:

‘This indicator is measured using the standard questionnaire during a health interview of a representative sample of the population aged 15 years and above. Many countries are carrying out such health interview surveys on a more or less regular basis. However, most of the data are collected from multiple sources by the Tobacco or Health unit at WHO/EURO.’

Appendix 13 (cont.)

INDICATOR 23:

WAITING TIMES FOR ADMISSION TO PUBLIC REHABILITATION FACILITY AND TO PUBLIC LONG-TERM CARE FACILITY

Waiting times for admission to public rehabilitation facility:

‘The denominator is the total number of patients referred for rehabilitation in a year under review who are accepted for a period of rehabilitation at RHKG. The numerator is the total number of patients actually transferred for rehabilitation at RHKG during the year under review.’

The median waiting time is from date of referral to date of transfer.

Exclusion criteria: deceased patients while waiting and discharged patients while waiting.’

Waiting times for admission to public long-term care facility:

‘The denominator is the total number of patients applying for government long term care during the year under review. The numerator is the total number of patients admitted to government long term care within 18 months from the date of application.’

The median waiting time is from date of application of long term care to date of admission.

Exclusion criteria: deceased patients while waiting and patients withdrawing their application.’

INDICATOR 24

AVAILABILITY OF DIAGNOSTIC / THERAPEUTIC INFRASTRUCTURE

Definition:

- ‘1) Number of Computer Tomography scanners (CT units) per 100,000 inhabitants.*
- 2) Number of Magnetic Resonance Imaging units (MRI units) per 100,000 inhabitants.’*

Calculation:

- ‘1) The total number of computer tomography scanners (CT units) in hospitals and ambulatory sector registered by 31 December in a given calendar year, per 100,000 inhabitants (end of year population).*

- 2) The total number of magnetic resonance imaging units (MRI units) in hospitals and ambulatory sector by 31 December in a given calendar year, per 100,000 inhabitants (end of year population).*

The preferred data type is from national administrative sources.’

Appendix 13 (cont.)

INDICATOR 25

COMPLICATIONS OF DIABETES: ANNUAL INCIDENCE RATES OF STROKE, MYOCARDIAL INFARCTION, DIALYSIS AND/OR RENAL TRANSPLANTATION IN PATIENTS WITH DIABETES*

Annual incidence rate by age category of diabetic patients with stroke:

‘Number of patients discharged from Mater Dei Hospital in 2013 with a recorded primary discharge diagnosis of Stroke (Codes: I63.x and I64.x) on the Electronic Case Summary database and who were alive and on the POYC diabetes register in May 2014, per 100,000 diabetic population.’

Annual incidence rate by age category of diabetic patients with myocardial infarction:

‘Number of patients discharged from Mater Dei Hospital in 2013 with a recorded primary discharge diagnosis of myocardial infarction (Code: I21.x) on the Electronic Case Summary database and who were alive and on the POYC diabetes register in May 2014, per 100,000 diabetic population.’

Annual incidence rate by age category of diabetic patients with renal dialysis:

‘Number of patients admitted to the Renal Unit to start renal replacement therapy in 2013 and who were alive and on the POYC diabetes register in May 2014, per 100,000 diabetic population.’

Annual incidence rate by age category of diabetic patients with renal transplant:

‘Number of patients with recorded renal transplantation (Code: 55.69) performed at Mater Dei Hospital in 2013 and who were alive and on the POYC diabetes register in May 2014, per 100,000 diabetic population.’

*(*Note: Definition not yet validated)*

INDICATOR 26

RATIO OF THE NUMBER OF DISCHARGES OF OLDER PERSONS AGED OVER 75 YEARS WHO ARE DISCHARGED FROM PUBLIC ACUTE HOSPITAL (MATER DEI HOSPITAL) TO THEIR HOME OF RESIDENCE AS COMPARED TO THOSE DISCHARGED TO LONG-TERM FACILITY

Definition:

Number of patients over 75 years of age who are discharged to their residence as compared to the number of patients over 75 years who are discharged to a long term residential or nursing facility.

Appendix 13 (cont.)

INDICATOR 26 (cont.)

Calculation:

Ratio or percentage of patients over 75 years of age who are discharged to their residence as compared to patients over 75 years who are discharged to a long term residential or nursing facility.

INDICATOR 27

PREVALENCE OF ADULTS WITH DIABETES, HYPERTENSION, HYPERCHOLESTEROLAEMIA BY AGE AND GENDER

Diabetes

Definition:

‘Number of individuals that have ever been diagnosed with diabetes and that have been affected by this condition during the past 12 months. Expressed per 100,000 and as percentage of total population.’

Calculation:

‘National best estimate of number of individuals that have ever been diagnosed with diabetes and that have been affected by this condition during the past 12 months (ICD-10 codes E10-E14; includes both diabetes mellitus type 1 and type 2 and other diabetes mellitus). Age standardisation should be done for men and women separately, according to the direct method, using the 1976 WHO European population as standard population.’

Hypertension

Definition:

‘Proportion of individuals reporting to have been diagnosed with high blood pressure which occurred during the past 12 months.’

Calculation:

‘Proportion of individuals reporting to have been diagnosed with high blood pressure (hypertension) which occurred during the past 12 months, derived from European Health Interview Survey (EHIS) questions HS.4/5/6: HS.4: Do you have or have you ever had any of the following diseases or conditions? High blood pressure (hypertension) (yes / no). If yes: HS.5: Was this disease/condition diagnosed by a medical doctor? (yes / no). HS.6: Have you had this disease/condition in the past 12 months? (yes / no).’

Appendix 13 (cont.)

INDICATOR 27 (cont.)

Hypercholesterolaemia*

Definition: Proportion of individuals reporting to have been diagnosed with hypercholesterolaemia which occurred during the past 12 months.

Calculation: Proportion of individuals reporting to have been diagnosed with hypercholesterolaemia which occurred during the past 12 months.

(*Note: Definition not yet validated)

INDICATOR 28

AVOIDABLE HOSPITAL ADMISSION RATES FOR SPECIFIC DISEASES

Definition and calculation: The avoidable hospital admission rates for asthma and Chronic Obstructive Pulmonary Disease *'are defined as the number of hospital discharges of people aged 15 years and over per 100 000 population. The indicator for diabetes is based on the sum of three indicators: admissions for short-term and long-term complications and for uncontrolled diabetes without complications.'*

INDICATOR 30

WAITING TIMES FOR OUT-PATIENT BASED INVESTIGATIONS AND INTERVENTIONS

Waiting times for elective surgeries

Definition and calculation: *'Average inpatient waiting time for elective (i.e. non-urgent) surgeries of Percutaneous Transluminal Coronary Angioplasty (PTCA), hip replacement and cataract operation, measured in number of days. Elective surgery is defined as when surgery is necessary, but the timing of the procedure can be scheduled and the patient can be sent home.'*

Appendix 13 (cont.)

INDICATOR 31

INCIDENCE RATE OF HIV AND HEPATITIS B PER 100,000 POPULATION

Incidence rate of HIV

Definition:

‘Incidence of HIV-infected and in a given calendar year, per 100,000 population.’

Calculation:

‘The rates are calculated as the number of newly diagnosed cases per 100,000 population, based on the number of cases reported by national surveillance systems to the joint WHO-Euro/ECDC database for surveillance in The European Surveillance System (TESS). A case of HIV infection is defined following the European HIV surveillance case definitions.’

INDICATOR 32

NUMBER OF VACCINE PREVENTABLE DISEASES COVERED BY THE NATIONAL VACCINATION PROGRAMME

Definition:

Number of vaccines on the national vaccination programme that prevent preventable diseases.

Calculation;

Count of types of vaccines.

INDICATOR 33

PERCENTAGE OVERWEIGHT AND OBESITY FROM SELF-REPORTED BMI BY AGE-GROUP (OVER 15 YEAR OLDS)

Definition:

‘Proportion of adult persons (18+) who are obese, i.e. whose body mass index (BMI) is ≥ 30 kg/m².’

Calculation:

‘Body mass index (BMI), or Quetelet index, is defined as the individual’s body weight (in kilograms) divided by the square of their height (in metres). Weight and height derived from European Health Interview Survey (EHIS) questions BMI01: How tall are you? (cm), and BMI02: How much do you weight without clothes and shoes? (kg).’

Appendix 13 (cont.)

INDICATOR 34

PERCENTAGE OF HEALTH BUDGET ALLOCATED TO PUBLIC HEALTH INCLUDING PREVENTIVE SERVICES

Definition:

Percentage of government budget on health that is allocated to public health activities as compared to the overall health budget.

Calculation:

Ratio of government expenditure on public health activities over total government health expenditure.

INDICATOR 35

HEALTH EXPENDITURE AS A PERCENTAGE OF GDP AND PER CAPITA

Health expenditure as percentage of GDP

Definition:

‘Current and total national health expenditure for total, public, and private sectors, as percentage of gross domestic product (GDP), and expressed in millions of Purchasing Power Standard (PPS).’

Calculation:

‘According to System of Health Accounts (SHA) and the related International Classification for the Health Accounts (ICHA) current expenditure on health care measures/describes financial means/ flows associated with (the consumption of) health care goods and services including governance and administration of health care system at large. Total expenditures also include investments (capital formation of health care providers). The calculation of Purchasing Power Parities (PPP)/PPS is based on the prices for a standard basket of goods.’

Health expenditure per capita

‘Total expenditure on health measures the final consumption of health goods and services (i.e. current health expenditure) plus capital investment in health care infrastructure. This includes spending by both public and private sources on medical services and goods, public health and prevention programmes and administration. To compare spending levels between countries, per capita health expenditures are converted to a common currency (US dollar) and adjusted to take account of the different purchasing power of the national currencies, in order to compare spending levels.’

Appendix 13 (cont.)

INDICATOR 36:

GENERAL GOVERNMENT HEALTH EXPENDITURE AS A PERCENTAGE OF TOTAL GOVERNMENT EXPENDITURE AND PERCENTAGE OF TOTAL HEALTH EXPENDITURE

General government health expenditure as a percentage of total government expenditure

General government health expenditure as a percentage of total health expenditure

‘Public health expenditure consists of recurrent and capital spending from government (central and local) budgets, external borrowings and grants (including donations from international agencies and nongovernmental organizations), and social (or compulsory) health insurance funds. Total health expenditure is the sum of public and private health expenditure. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation.’

Public-sector expenditure on health as a percentage of GDP (WHO estimates)

Public sector (or general government) expenditure on health is the sum of outlays for health maintenance, restoration or enhancement paid for in cash or in kind by government entities, such as the Ministry of Health, other ministries, parastatal organizations, social security agencies, (without double-counting the government transfers to social security and to extra-budgetary funds). Includes transfer payments to households to offset medical care costs and extra-budgetary funds to finance health. The revenue base of these entities may comprise multiple sources, including external funds. Estimates for this indicator were produced by WHO. The estimates are, to the greatest extent possible, based on the National Health Accounts classification (see the World Health Report 2006 for details). The sources include both nationally reported data and estimates from international organisations like IMF, WB, UN and OECD. Therefore they may somewhat differ from official national statistics reported by countries.

INDICATOR 37

LIFE EXPECTANCY AND HEALTHY LIFE EXPECTANCY AT BIRTH AND OVER 65

Life expectancy

Definition: *‘Life expectancy at a given age represents the average number of years of life remaining if a group of persons at that age were to experience the mortality rates for a particular year over the course of their remaining life. Life expectancy at birth is a summary measure of the age-specific all cause mortality rates in an area in a given period.’*

Appendix 13 (cont.)

INDICATOR 37

Life expectancy (cont.)

Calculation:

'Life expectancies are calculated using (abridged) life tables presenting age specific mortality rates. Life expectancy tables are calculated based on death probabilities according to Farr's death rate method:

$$qx = Mx / (Bx + (Mx/2))$$

where:

- *Mx = the number of deaths at the age of x to under x+1 years in the reported period.*
- *Bx = average population aged x to under x+1 in the base period.*
- *qx = death probability from age x to x+1.*

Farr's method of calculation of abridged life-tables assumes that there is a constant mortality within the age intervals and thus the years of life lived by a person dying in the interval is (on average) half of the length of the interval.'

Healthy life years

Definition:

'The Healthy Life Years (HLY) indicator (also called disability-free life expectancy) measures the number of remaining years that a person of a certain age is still supposed to live without disability.'

Calculation:

'The indicator is calculated following the Sullivan method' Further information can be found at http://www.ehemu.eu/pdf/Sullivan_guide_final_jun2007.pdf

INDICATOR 38

POTENTIAL YEARS OF LIFE LOST

Definition:

'Potential Years of Life Lost (PYLL) is a summary measure of premature mortality which provides an explicit way of weighting deaths occurring at younger ages, which are, a priori, preventable.'

Calculation:

'The calculation of PYLL involves summing up deaths occurring at each age and multiplying this with the number of remaining years to live up to a selected age limit.'

Appendix 13 (cont.)

INDICATOR 39

PUBLIC HEALTH EXPENDITURE AS A PERCENTAGE OF GDP FOR HOSPITALS, AMBULATORY SERVICES AND LONG TERM CARE

Public health expenditure consists of recurrent and capital spending from government (central and local) budgets, external borrowings and grants (including donations from international agencies and nongovernmental organizations), and social (or compulsory) health insurance funds.

INDICATOR 40

HOSPITAL DAY-CASES AS PERCENTAGE OF TOTAL PATIENT POPULATION (IN-PATIENTS & DAY-CASES) SELECTED DIAGNOSES

Definition:

‘Hospital day-cases, for specific ICD-10 diagnosis groups, divided by the sum of number of inpatient discharges and the number of day-cases for the same diagnosis group.’

Calculation:

‘The indicator is calculated as the total number of hospital day-cases from all hospitals during the given calendar year, divided by the sum of the number of hospital in-patient discharges from all hospitals and the number of hospital day-cases from all hospitals, for each of the diagnosis groups, during the given calendar year.’

INDICATOR 41

NUMBER AND RATIOS OF ALL PRACTICING DOCTORS, GPS, SPECIALISTS AND NURSES AND MIDWIVES PER 100,000 INHABITANTS

All practicing doctors

Definition:

‘The total number of practicing physicians (medical doctors) per 100,000 inhabitants.’

Calculation:

‘The total number of practicing physicians (medical doctors) by 31 December of a given calendar year, per 100,000 inhabitants (end of year population). Practicing physicians provide services directly to patients.’

Appendix 13 (cont.)

INDICATOR 41

Practicing nurses

Definition:

‘The total number of practising nursing and caring professionals by 31 December of a given calendar year, per 100,000 inhabitants (end of year population). Practicing nurses provide services directly to patients. Practising nurses include professional nurses, associate professional nurses and foreign nurses licensed to practice and actively practicing in the country.’

Calculation:

‘The total number of practicing nursing and caring professionals by 31 December of a given calendar year, per 100,000 inhabitants (end of year population). Practicing nursing and caring professionals provide services directly to patients. Nursing and caring professionals include midwives, qualified nurses, associate nurses and caring personnel (e.g. nursing aids, assistants). A nurse is a person who has completed a programme of basic nursing education and is qualified and authorised in his/her country to practice nursing in all settings.’

INDICATOR 43

GP CONTACTS PER CAPITA

Definition:

‘Mean number of self-reported visits to general practitioner per person per year.’

Calculation:

‘Mean number of visits to general practitioner per person per year, derived from EHIS questions HC10 and HC11. HC10:

When was the last time you consulted a GP (general practitioner) or family doctor on your own behalf?

(1) Less than 12 months ago (2) 12 months ago or longer (3) Never

If HC10 is 1) HC11: During the past four weeks ending yesterday, that is since (date), how many times did you consult a GP (general practitioner) or family doctor on your own behalf? (number of times).

Total number of contacts reported under HC11 is extrapolated from 4 to 52 weeks, and divided by the total number of respondents in the sample.

For comparability reasons ECHIM would prefer age-standardised data.’

Appendix 13 (cont.)

INDICATOR 44

PUBLIC OUTPATIENT PHARMACEUTICALS AS PERCENTAGE OF GDP

Definition:

‘Pharmaceutical expenditure covers spending on prescription medicines and self-medication, often referred to as over-the-counter products. In some countries, the data also include other medical non-durable goods (adding approximately 5% to the spending). The expenditure also includes pharmacists’ remuneration when the latter is separate from the price of medicines. Pharmaceuticals consumed in hospitals are excluded (their inclusion would add another 15% to pharmaceutical spending approximately). Final expenditure on pharmaceuticals includes wholesale and retail margins and value-added tax’.

INDICATOR 45

GENERIC SHARE OF PHARMACEUTICALS IN VALUE/VOLUME (PUBLIC)

Definition and calculation:

‘A generic is defined as a pharmaceutical product which has the same qualitative and quantitative composition in active substances and the same pharmaceutical form as the reference product, and whose bioequivalence with the reference product has been demonstrated. Generics can be classified in branded generics (generics with a specific trade name) and unbranded generics (which use the international non-proprietary name and the name of the company).’

Value:

‘Data are collected as a share expressed in value. Values can for instance be the turnover of pharmaceutical companies, the amount paid for pharmaceuticals by third-party payers, or the amount paid by all payers (third-party and consumers). Market value are most often at ex-factory prices, while amounts paid by third-party payers (and consumers) are in general at retail prices.’

Volume:

‘Data are collected as a share expressed in volume. Volumes can be expressed in DDDs or as a number of packages/boxes or standard units.’

Appendix 13 (cont.)

INDICATOR 46: SELF-PERCEIVED HEALTH

Definition:

‘Proportion of persons who assess their health to be (very) good.’

Calculation:

‘Proportion of persons who assess their health to be very good or good, based on EU-SILC question on self-perceived health (‘How is your health in general?’), which contains five answering categories; 1) very good, 2) good, 3) fair, 4) bad, 5) very bad. Numbers of people assessing their health as either very good or good should be added and divided by the total number of people who were interviewed.

For comparability reasons ECHIM would prefer age-standardised data.’

INDICATOR 47: UNMET NEED (SILC)

Definition:

‘The variables refer to the respondent's own assessment of whether he or she needed the respective type of examination or treatment, but did not have it and if so what was the main reason of not having it.’

Calculation:

‘The variables on unmet needs for health care targets two broad types of services: medical care and dental care. Eurostat currently disseminates the following indicators for unmet needs:

- *Self-reported unmet needs for medical examination for reasons of barriers of access.*
- *Self-reported unmet needs for medical examination by reason.*
- *Self-reported unmet needs for dental examination by reason.*

All indicators are expressed as percentages within (or share of) the population and breakdowns are given by: sex, age, labour status, educational attainment level, and income quintile group.’

Appendix 13 (cont.)

INDICATOR 48

PERCENTAGE OF POPULATION COVERED BY PUBLIC HEALTH INSURANCE

Definition:

‘The proportion of the population covered by health insurance, taking into account both public and private insurance schemes.’

Calculation:

‘Public (government/social) health insurance coverage is the share of the population (%) eligible for a defined set of health care goods and services that are included in total public health expenditure. Private health insurance coverage is the share of the population (%) based on a head count of individuals covered by at least one private health insurance policy (including both individuals covered in their own name and dependents).’

INDICATOR 49

OUT OF POCKET HEALTH EXPENDITURE AS PERCENTAGE OF TOTAL HEALTH EXPENDITURE/ PRIVATE HEALTH EXPENDITURE

Definition and calculation:

‘Out of pocket expenditure is any direct outlay by households, including gratuities and in-kind payments, to health practitioners and suppliers of pharmaceutical, therapeutic appliances and other goods and service whose primary intent is to contribute to the restoration or enhancement of the health status of individuals or population groups. It is a part of private expenditure.’

INDICATOR 50

INFLUENZA VACCINATION COVERAGE IN 65+

Definition:

‘Proportion of elderly individuals reporting to have received one shot of influenza vaccine during the last 12 months.’

Calculation:

‘Percentage of persons aged 65 and older reporting to have been vaccinated against influenza (brand name of vaccine to be verified in each country) during the last 12 months, derived from EHIS questions PA.1, PA.2 and PA.3. PA.1:

Have you ever been vaccinated against flu? 1. Yes / 2. No; PA.2:

When were you last time vaccinated against flu?

1. Since the beginning of this year / 2. Last year / 3. Before last year;

Appendix 13 (cont.)

INDICATOR 50 (cont.)

Calculation (cont.)

PA.3: Can I just check, what month was that? Month (01-12).

A recall period of 12 months is used to cover one influenza season.

For comparability reasons ECHIM would however prefer age-standardised data.'

INDICATOR 51

FREQUENCY OF POPULATION HAVING 6 OR MORE UNITS OF ALCOHOL ON ONE OCCASION

Definition:

'Proportion of individuals reporting to have had an average rate of consumption of more than 20 grams pure alcohol daily for women and more than 40 grams daily for men.'

Calculation:

'Percentage of men/women having over the week on average ≥ 2 drinks/day (women) or ≥ 3 drinks/day (men), derived from EHIS question AL.2: How many drinks containing alcohol do you have each day in a typical week when you are drinking? Start with Monday and take one day at a time. Number of drinks of: Beer, Wine, Liqueur, Spirits, Other local alcoholic beverage.'

INDICATOR 52

FRUIT AND VEGETABLE CONSUMPTION

Fruit consumption

Definition:

'Proportion of people reporting to eat fruits (excluding juice) at least once a day.'

Calculation:

'Percentage of people reporting to eat fruits (excluding juice) at least once a day, derived from EHIS question FV.1.

How often do you eat fruits (excluding juice)?

1. Twice or more a day / 2. Once a day / 3. Less than once a day but at least 4 times a week / 4. Less than 4 times a week, but at least once a week / 5. Less than once a week / 6. Never (answering categories 1 and 2 should be added for the calculation of this indicator).

For comparability reasons ECHIM would prefer age-standardised data.'

Appendix 13 (cont.)

INDICATOR 52 (cont.)

Vegetable consumption

Definition:

‘Proportion of people reporting to eat vegetables (excluding potatoes and juice) at least once a day.’

Calculation:

Percentage of people reporting to eat vegetables (excluding potatoes and juice) at least once a day, derived from EHIS question FV.2. How often do you eat vegetables or salad (excluding juice and potatoes)? 1. Twice or more a day / 2. Once a day / 3. Less than once a day but at least 4 times a week / 4. Less than 4 times a week, but at least once a week / 5. Less than once a week / 6. Never (answering categories 1 and 2 should be added for the calculation of this indicator).

For comparability reasons ECHIM would prefer age-standardised data.’

INDICATOR 53

PERCENTAGE REPORTING MORE THAN 2.5 HOURS OF PHYSICAL ACTIVITY PER WEEK BY AGE AND SEX

Definition:

‘Proportion of individuals reporting to perform a certain period of time of health enhancing physical activity on an average day/at least x times per week.’

Calculation:

‘EHIS instrument to measure the proportion of population performing moderate and vigorous physical activity (days and/or hours per week), derived from questions PE.16: During the past 7 days, a) days and time devoted to vigorous physical activities, b) days and time devoted to moderate physical activities, c) days and time spent walking. For comparability reasons ECHIM prefers age-standardised data.’

Appendix 13 (cont.)

INDICATOR 55

OLD-AGE DEPENDENCY RATIO AND SHARE OF POPULATION 65+/80+

Old age dependency ratio

Definition and calculation:

‘The ratio between the total number of elderly persons of an age when they are generally economically inactive (aged 65 and over) and the number of persons of working age (from 15 to 64). National annual estimates of the population can be based on data from the most recent census adjusted by the components of population change produced since the last census. The total population may comprise either all usual residents of the country (de jure population) or all persons present (de facto population) in the country at a given moment in time. Usual residents are those who have lived in their place of usual residence for a continuous period of at least 12 months before the reference date or those who arrived in their place of usual residence during the 12 months before the reference date with the intention of staying there for at least one year.’

INDICATOR 57: AT RISK OF POVERTY OR SOCIAL EXCLUSION

Definition:

‘At risk of poverty refers to the share of persons with an income below the poverty line. Income inequality is defined by the ratio of total income received by 20% of the country’s population with the highest income to that received by 20% of the country’s population with the lowest income.’

Calculation:

‘Population at risk of poverty: Percentage of persons in the total population with an equivalised disposable income below the “national poverty line” (i.e. below 60% of the national median equivalised disposable income). Total population is all persons living in private household on the national territory. Total disposable income of a household is calculated by adding together the personal income received by all of the household members, plus income received at household level. Disposable household income includes all income from work, private income from investment and property, transfers between households and all social transfers received in cash including old-age pensions. Personal equivalised income is obtained by dividing the total household disposable income by the equivalised size of the household, using modified OECD scale: 1 for the first person aged 14 or more; 0.5 for any subsequent person aged 14 or more; and 0.3 for persons aged less than 14.

Income inequality is calculated as the ratio of the sum of equivalised disposable income received by the 20% of the country’s population with the highest equivalised disposable income (top inter-quintile interval) to that received by the 20% of the country’s population with the lowest equivalised disposable income (lowest inter-quintile interval).’

Appendix 13 (cont.)

INDICATOR 58: POPULATION BY EDUCATION

Definition: ‘Proportion (%) of population divided up into three classes of educational attainment (low, middle and high education). Attainment profiles are based on highest completed specified level of education.’

Calculation: ‘Percentage of total population in the 7 classes of ISCED (International Standard Classification of Education 1997), aggregated into three attainment groups comprising of: elementary and lower secondary education (ISCED level 0, 1 and 2), upper/post secondary (ISCED levels 3 and 4) and tertiary (ISCED levels 5 and 6).’

INDICATOR 60 HIP FRACTURE SURGERY INITIATED WITHIN TWO CALENDAR DAYS AFTER ADMISSION TO MATER DEI HOSPITAL

Coverage:

Patients aged 65 and older (5 year age group) admitted to the main public acute hospital in Malta.

Numerator:

Number of patients as defined in the denominator who were surgically treated within 2 calendar days after admission.

Denominator:

Number of patients aged 65 years or older admitted to the hospital with a diagnosis of upper femur fracture who were surgically treated in the specified year [Hip fracture diagnostic codes: ICD-10 S72.0, S72.1, S72.2 or ICD-9 820].

Technical notes:

- “Within two calendar days” is defined as:
 1. Treated on Day 0 (same day as admission)
 2. Treated on Day 1 (next day)
 3. Treated on Day 2.
- The following cases need to be included in both numerator and denominator:
 1. Fixation, hip joint.
 2. Application of external fixator device.
 3. Implantation of internal device, hip joint.
 4. Fixation, femur.
 5. Implantation of internal device pelvis.
 6. Closed reduction of fracture with internal fixation.
 7. Open reduction of fracture with internal fixation.
 8. Total hip replacement
 9. Partial hip replacement.

Appendix 13 (cont.)

INDICATOR 60 (cont.)

Technical notes (cont.):

- *The following cases were excluded from both numerator and denominator:*
 1. *Elective cases (admission not recorded as emergency).*
 2. *Events where hip fracture is coded as post-admission diagnosis on the index hospitalisation or the surgery hospitalisation (regardless of the admission category).*
 3. *Records with invalid admission, discharge or procedure date.*
 4. *Discharged as self-sign-out or did not return from a pass.*
-

INDICATOR 61

PROPORTION OF POPULATION THAT ACCESSES OWN HEALTH DATA ON-LINE

Definition:

Proportion of the population aged 14 and over that has successfully logged into online services that provide access to the person's own health data.

Calculation:

Number of persons successfully logging into the Government's patient access portal (currently myHealth – www.mygov.mt) at least once during a calendar year, divided by the number of Maltese residents aged 14 and over.

INDICATOR 62

RATE PER CAPITA OF PRESCRIPTIONS TRANSACTED ON LINE

Definition:

Number of prescriptions transacted online ("ePrescriptions") during a calendar year, expressed as a rate per capita of the resident Maltese population.

Calculation:

Number of completed ePrescription transactions during a calendar year, divided by the total number of Maltese residents.

Appendix 14

Results: Dimensions and indicators

SOCIO-ECONOMIC INDICATORS			
No.	Indicator	Trend over time	International comparison
55	Share of population 65+/80+; old age dependency (65+/15-64).	Stable	Malta fares better
58	Percentage of population 25-64 with low educational attainment.	Improving	Malta fares worse
57	Proportion of population at risk of poverty or social exclusion.	Deteriorating	Malta fares better

HEALTH STATUS	Fair	1.88
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No.	Indicator	Trend over Time	International comparison	Assessment	Score	Weight
46	Self-perceived general health (SILC) according to income.	Stable	Malta fares better	Good	3	2
3	Standardised mortality rates.	Improving	Malta fares the same	Good	3	2
5	Standardised premature mortality rates.	Improving	Malta fares better	Very good	4	3
27	Prevalence of adults with diabetes, hypertension, hypercholesterolaemia	More data / research is needed	More data/research is needed	More data/research is needed		3
21	Annual incidence of Type 1 diabetes in children.	Deteriorating	Malta fares the same	Poor	1	1
37	Life expectancy at birth and at age 65.	Stable	Malta fares better	Good	3	3
17	Incidence rate of TB, and multi drug resistant notification rate.	Deteriorating	Malta fares the same	Poor	1	2

Appendix 14 (cont.)

HEALTH STATUS (cont.)	Fair	1.88
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No.	Indicator	Trend over Time	International comparison	Assessment	Score	Weight
31a	Notification rate of HIV per 100,000 population.	Deteriorating	Malta fares worse	Very poor	0.1	1.5
31b	Notification rate of Hepatitis B per 100,000 population.	More data/research is needed	More data/research is needed	More data/research is needed		1
7a	Perinatal mortality rate	Stable	Malta fares better	Satisfactory	2	2.5
7b	Infant mortality rate	Stable	Malta fares worse	Very poor	0.1	3
9	Child mortality rate (1-14 years).	Improving	Malta fares worse	Satisfactory	2	3
6a	Standardised Cancer Incidence Rates – Colorectal	Deteriorating	Malta fares better	Satisfactory	2	2.5
6b	Standardised Cancer Incidence Rates – Lung	Deteriorating	Malta fares better	Satisfactory	2	2.5
6c	Standardised Cancer Incidence Rates – Prostate	Deteriorating	Malta fares better	Satisfactory	2	2
6d	Standardised Cancer Incidence Rates – Cervical	Deteriorating	Malta fares better	Satisfactory	2	2.5
6e	Standardised Cancer Incidence Rates – Breast	Deteriorating	Malta fares worse	Very poor	0.1	3

Appendix 14 (cont.)

DETERMINANTS OF HEALTH	Poor	1.30
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No.	Indicator	Trend over time	International comparison	Assessment	Score	Weight
22	Prevalence of smoking in males and females in over 15 year olds.	Stable	Malta fares better	Good	3	3
33	Proportion of the population who are overweight and obese.	Deteriorating	Malta fares worse	Very Poor	0.1	3
51	Rate of binge drinking.	Deteriorating	Malta fares worse	Very Poor	0.1	1.5
52	Percentage of the resident population in Malta aged over 15 years who report consuming fruit and/or vegetables daily.	Deteriorating	Malta fares better	Satisfactory	2	1.5
53	Proportion of the population who report conducting more than 2.5 hours of physical activity per week.	Stable	More data / research is needed	Poor	1	2.5

Appendix 14 (cont.)

EFFICIENCY	Poor	1.38
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No.	Indicator	Trend over time	International comparison	Assessment	Score	Weight
15	Hospital inpatient average length of stay	Deteriorating	Malta fares better	Satisfactory	2	3
40	Day case discharges as a percentage of curative care discharges	Stable	Malta fares worse	Poor	1	3
60	Hip fracture surgery initiated within two calendar days after admission to Mater Dei Hospital	Deteriorating	Malta fares the same	Poor	1	2
62	Rate per capita of prescriptions transacted online	More data/research is needed	More data/research is needed	More data/research is needed		2

Appendix 14 (cont.)

ACCESS	Fair	1.61
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No.	Indicator	Trend over Time	International comparison	Assessment	Score	Weight
47	Unmet need by income quintile.	Improving	Malta fares better	Very good	4	2
13	Self-referrals to A&E.	Poor	More data / research is needed	Very poor	0.1	2
14	Waiting times for appointment at out-patient clinics.	More data / research is needed	More data / research is needed	More data / research is needed		3
23a	(Median) waiting times for admission to the public rehabilitation facility.	Stable	More data / research is needed	Good	3	2
23b	(Median) waiting times for admission to the public long-term care facility.	Deteriorating	More data / research is needed	Very poor	0.1	3
30	Waiting time for out-patient based investigations.	More data / research is needed	More data / research is needed	More data / research is needed		3
43	GP contacts per capita.	More data / research is needed	More data / research is needed	More data / research is needed		2

Appendix 14 (cont.)

RESPONSIVENESS	Good	2.55
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No.	Indicator	Trend over time	International comparison	Assessment	Score	Weight
2	Response rate to screening programmes.	Improving	Malta fares the same	Good	3	3
16	Percentage of infants fully vaccinated by first and second birthdays.	Improving	Malta fares better	Very good	4	2.5
32	Number of vaccine preventable diseases covered by the national vaccination programme (2012).	Stable	Malta fares worse	Satisfactory	2	2
26	Ratio of the number of discharges of older persons aged over 75 years who are discharged from public acute hospital (Mater Dei Hospital) to their home of residence as compared to those discharged to long-term facility.	Deteriorating	More data / research is needed	Poor	1	2.5
61	Proportion of population that accesses own health data online.	Improving	More data / research is needed	More data / research is needed		2

Appendix 14 (cont.)

QUALITY	Fair	1.93
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No.	Indicator	Trend Over Time	International Comparison	Assessment	Score	Weight
18	Hospital readmission rates within 30 days, by specialty.	More data / research is needed	More data / research is needed	More data / research is needed		2.5
1	Five-year cancer survival rates.	Improving	Malta fares worse	Satisfactory	2	3
25	Complications of diabetes - annual incidence rate of diabetic patients with complications.	More data / research is needed	More data / research is needed	More data / research is needed		2.5
12	Incidence of MRSA hospital acquired infection.	Improving	Malta fares worse	Satisfactory	2	2
11	Incidence rate of AIDS per 100,000 population	More data / research is needed	Malta fares worse	Poor	1	2
19	Thirty (30) day in-hospital mortality rate for specific clinical conditions.	Stable	Malta fares the same	Satisfactory	2	3
50	Influenza vaccine coverage in over 65 years.	More data/research is needed	More data/research is needed	More data/research is needed		2
38	Potential years of life lost from all causes.	Stable	Malta fares better	Good	3	3
28a	Potentially avoidable hospital admission rates (standardised by age and sex) for asthma.	Improving	Malta fares worse	Satisfactory	2	2.5
28b	Potentially avoidable hospital admission rates (standardised by age and sex) for CHF.	Deteriorating	Malta fares worse	Very poor	0.1	3
28c	Potentially avoidable hospital admission rates (standardised by age and sex) for COAD	Deteriorating	Malta fares the same	Poor	1	3
4	Maternal Mortality Ratio	Improving	Malta fares better	Very Good	4	3

Appendix 14 (cont.)

STEWARDSHIP	UNDETERMINED
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No.	Indicator	Trend over Time	International comparison	Assessment	Score	Weight
8	Fatal accidents at the place of work / fatality rates (per economic sector)	Improving	Malta fares the same	Good	3	1.5
34	Percentage of health budget allocated to public health, including preventive services.	More data / research is needed	More data / research is needed	More data / research is needed		3
39	Public expenditure as a percentage of GDP for hospitals, ambulatory services and long term care.	More data / research is needed	More data / research is needed	More data / research is needed		3
45	Generic share of pharmaceuticals in value/volume (public expenditure).	More data / research is needed	More data / research is needed	More data / research is needed		2
44	Public outpatient pharmaceuticals as a percentage of GDP.	More data / research is needed	More data / research is needed	More data / research is needed		2
48	Percentage of population covered by public health insurance (tax-based, public health insurance and income tax, including social security contribution schemes).	More data / research is needed	More data / research is needed	More data / research is needed		2.5

Appendix 14 (cont.)

RESOURCES	Poor	1.40
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No.	Indicator	Trend over time	International comparison	Assessment	Score	Weight
10	Acute hospital bed occupancy rates.	Stable	Malta fares worse	Poor	1	3
20	Number of hospital beds per 100,000 population.	Deteriorating	Malta fares worse	Very poor	0.1	3
24	Availability of diagnostic/therapeutic infrastructure.	Stable	Malta fares the same	Satisfactory	2	3
41a	Numbers and ratios of all practising doctors, GPs, specialists per 100,000 population.	More data / research is needed	Malta fares the same	Satisfactory	2	2.5
41b	Numbers and ratios of all nurses per 100,000 population.	Improving	Malta fares worse	Satisfactory	2	3

Appendix 14 (cont.)

FINANCING	Fair	1.66
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No.	Indicator	Trend over time	International comparison	Assessment	Score	Weight
49	Out of pocket health expenditure as a percentage of total health expenditure / private health expenditure.	Stable	Malta fares worse	Poor	1	3
35a	Total health expenditure as a percentage of GDP.	Stable	Malta fares better	Good	3	2.5
35b	Health expenditure as a percentage of GDP/per capita [pps].	More data/research is needed	More data/research is needed	More data/research is needed		2
36a	General government health expenditure as a percentage of total government expenditure.	Stable	Malta fares better	Good	3	2.5
36b	General government health expenditure as a percentage of total health expenditure for 2012.	Deteriorating	Malta fares worse	Very poor	0.1	2
36c	Public-sector expenditure on health as a percentage of GDP.	Stable	Malta fares worse	Poor	1	2.5

Appendix 15

Dr Kenneth Grech's nomination on EU HSPA Expert Group

From: Gera Paula at MEAIM

Sent: 30 October 2014 15:03

To: Permanent Representative of Malta (EU) at MaltaRep (MEAIM)

Cc: Calleja Antoinette at MEH-Health Information-Health; Demicoli Karen at MEH-DPDEUIA-Health; Mifsud Stephen M at MaltaRep; Gatt Moreau Nadine at MEAIM; Grech Kenneth at MDH-Health; Camilleri Darren at MaltaRep; Deputy Permanent Representative of Malta (EU) at MaltaRep; Genkhang Rigzin at MaltaRep; Pace Lupi Christine at MaltaRep; Head EU Secretariat at MEAIM

Subject:

Malta's Nomination to the first expert group meeting on Health Systems Performance Assessment to be held on 10 November 2014

Attachments:

invitation_signed®istered_10-11-2014.pdf; draft agenda_10-11-2014.pdf

Importance: High

Health and Consumer Affairs Attaché

Subject:

Malta's Nomination to the first expert group meeting on Health Systems Performance Assessment to be held on 10 November 2014.

Kindly send the following nomination to SANCO-HSPA@ec.europa.eu

“Reference is being made to Malta's Nomination to the first expert group meeting on Health Systems Performance Assessment to be held on 10 November 2014.

Kindly be informed that Malta's representative is as follows:

Name: Kenneth Grech
Position: Consultant
Address: Public Health Medicine
Ministry for Energy and Health
Mater Dei Hospital,
Triq Tal-Qroqq,
Msida, Malta
Tel No: +356 22992462
Email: kenneth.grech@gov.mt

Paula

Appendix 15 (cont.)

From: SANCO-HSPA@ec.europa.eu [mailto:SANCO-HSPA@ec.europa.eu]

Sent: Tuesday, 21 October 2014 16:18

To: philipp.tillich@bmeia.gv.at; kris.boers@diplobel.fed.be; david.royaux@diplobel.fed.be; Zlatimira.dobрева@bg-permrep.eu; tea.kelviser@mvep.hr; lgeorgiou@mphs.moh.gov.cy; klambraki@mphs.moh.gov.cy; eva_gottvaldova@mzv.cz; maloro@um.dk; tairi.taht@mfa.ee; sari.vuorinen@formin.fi; vincent.houdry@diplomatie.gouv.fr; ges-10-eu@brue.auswaertiges-amt.de; a.lanaras@rp-grece.be; laszlo.bencze@mfa.gov.hu; eddie.oreilly@dfa.ie; sanita@rpue.esteri.it; karina.zalite@mfa.gov.lv; svens.henkuzens@mfa.gov.lv; sandra.rumseviciute@eu.mfa.lt; laura.valli@mae.etat.lu; Mifsud Stephen M at MaltaRep; Marianne.Vaes@minbuza.nl; lilianna.michalik@msz.gov.pl; ljb@reper-portugal.be; stefan.staicu@rpro.eu; alexandra.turkovicova@mzv.sk; gabrijela.korze@gov.si; francisco.sevilla@reper.maec.es; thomas.allvin@gov.se; Rebecca.brown@fco.gov.uk; E.Nolte@lse.ac.uk; Pascal.meeus@inami.fgov.be; Lieven.deraedt@health.fgov.be; friederike.botzenhardt@bmg.bund.de; irene.keinhorst@bmg.bund.de; mbho@sum.dk; chm@sum.dk; liis.roovali@sm.ee; secretary.gen@yyka.gov.gr; secretary.gen@moh.gov.gr; nmaniadakis@esdy.edu.gr; felix.faucon@sante.gouv.fr; eric.trottmann@sante.gouv.fr; dijana.cimera@miz.hr; mihalicza.peter@gyemszi.hu; kristine.klavina@vm.gov.lv; Beate.Margrethe.Huseby@helsedir.no; jml@reper-portugal.be

Cc: Nathalie.Chaze@ec.europa.eu; Andrzej.RYS@ec.europa.eu; Federico.PAOLI@ec.europa.eu; Dirk.VAN-DEN-STEEN@ec.europa.eu; olivia.wigzell@regeringskansliet.se; Ingrid.Schmidt@regeringskansliet.se; jfi@obs.euro.who.int; Gaetan.LAFORTUNE@oecd.org

Subject: FOR YOUR ATTENTION: Invitation to the first expert group meeting on health systems performance assessment – 10 November 2014.

Dear all,

See attached an invitation to the first expert group meeting on health systems performance assessment that will take place **on 10 November 2014 in Brussels**.

We also enclose a draft agenda of the meeting.

I kindly remind those Member States who have not nominated their representative(s) to the expert group yet to please do so as soon as possible and not later than Friday 24 October by notifying the secretariat at SANCO-HSPA@ec.europa.eu. Please specify if s/he will attend the meeting on the 10th of November.

Best regards,

On behalf of the HSPA secretariat,

Katarina Dvorska

Katarina Dvorska

Assistant

European Commission

Directorate-General for Health and Consumers

Healthcare systems

Workforce & Patient Safety & Patients' Rights team B232 08/63B-1049

Brussels/Belgium+32 229-96329

katarina.dvorska@ec.europa.eu

Appendix 16

List of email correspondence requesting permission from participants and experts of HSPA Expert Group and other meetings


Recipient	Subject	Received
Patrizia Theurer	AW: HSPA Presentation - Rome, April 2016	02/11/2016
Ralf Jacob	RE: Peer Review Presentation	12/10/2016
Francesca Avolio	R: HSPA - Integrated Care Presentation - Rome, April 2016	11/10/2016
Niek Klazinga	RE: HSPA - Presentation	06/10/2016
Giada Li Calzi	Re: HSPA - Integrated Care Presentation - Rome, April 2016	05/10/2016
Ellen Nolte	RE: HSPA Presentation - Rome, April 2016	05/10/2016
Pascal Meeus	RE: HSPA Presentation - Rome, April 2016	04/10/2016
Florian Bachner	AW: HSPA Presentation - Rome, April 2016	04/10/2016
Maria M Hofmarcher-Holzhacker	AW: HSPA Presentation - Rome, 2016	04/10/2016
Thilo Grüning	HSPA Presentation - Berlin	24/11/2015
Michael van den Berg	Re: HSPA Presentation - May 2015	24/11/2015
Ellen Nolte	RE: HSPA Presentations	23/11/2015
Peter Mihalicza	RE: HSPA Presentation - February 2015	23/11/2015
Sabina Nuti	R: HSPA Presentation - February 2015	23/11/2015
Thilo Grüning	HSPA Presentation - Berlin	20/11/2015
Pascal Meeus	RE: Presentations during Peer Review Meeting held in Brussels in May 2014	20/11/2015
Peter C Smith	Re: Presentations during Peer Review Meeting held in Brussels in May 2014	20/11/2015
Juan Tello	RE: HSPA Presentation - Berlin	20/11/2015

Appendix 16 (cont.)

Recipient	Subject	Received
Enrique Bernal-Delgado	Re: HPSA Presentation - May 2015	20/11/2015
Kjell Asplund	Re: HSPA Presentation - February 2015	19/11/2015
CI HSD	RE: HSPA Presentation - Berlin	19/11/2015
Christof Veit	AW: HSPA Presentation - Berlin	19/11/2015
Olivia Wigzell	Re: HSPA Presentations	19/11/2015
Marina Davoli	Re: HPSA Presentation - February 2015	19/11/2015
Keith Derbyshire	RE: HSPA Presentation - Berlin	19/11/2015
Felix Faucon	RE: HPSA Presentation - May 2015	19/11/2015
Mikko Peltola	VS: HSPA Presentation - Berlin	19/11/2015
Elvtegen Henning	SV: HPSA Presentation - February 2015	19/11/2015
Federico Paoli	RE: HSPA Presentations	19/11/2015
Gaetan Lafortune	RE: HPSA Presentation - February 2015	19/11/2015
Niek Kalzinga	RE: HSPA Presentation - May 2015	19/11/2015
Hans Kluge	HSPA Presentation - Berlin	19/11/2015

Appendix 17

Ethical approval from the University of Warwick Biomedical and Scientific Research Ethics Committee



PRIVATE
Dr K Grech
Warwick Medical School
University of Warwick
COVENTRY
CV4 7AL

3rd April 2017

Dear Dr Grech,

Short title of study: The Development and Implementation of National Health System Performance Assessment Frameworks in Malta and Beyond and Their Impact upon Policy Development- **REGO-2017-1922**

Thank you for submitting the above-named project to the University of Warwick Biomedical and Scientific Research Ethics Committee for research ethical review.

I am pleased to advise that research ethical approval is granted.

In undertaking your study, you are required to comply with the University of Warwick's *Research Data Management Policy*, details of which may be found on the Research and Impact Services' webpages, under "Codes of Practice & Policies" » "Research Code of Practice" » "Data & Records" » "Research Data Management Policy", at: http://www2.warwick.ac.uk/services/ris/research_integrity/code_of_practice_and_policies/research_code_of_practice/datacollection_retention/research_data_mgt_policy

You are also required to comply with the University of Warwick's *Information Classification and Handling Procedure*, details of which may be found on the University's Governance webpages, under "Governance" » "Information Security" » "Information Classification and Handling Procedure", at: <http://www2.warwick.ac.uk/services/gov/informationsecurity/handling>.

Investigators should familiarise themselves with the classifications of information defined therein, and the requirements for the storage and transportation of information within the different classifications:

Information Classifications:
<http://www2.warwick.ac.uk/services/gov/informationsecurity/handling/classifications>
Handling Electronic Information:
<http://www2.warwick.ac.uk/services/gov/informationsecurity/handling/electronic/>
Handling Paper or other media
<http://www2.warwick.ac.uk/services/gov/informationsecurity/handling/paper/>

Please also be aware that BSREC grants ethical approval for studies. The seeking and obtaining of all other necessary approvals is the responsibility of the investigator

Appendix 17 (cont.)

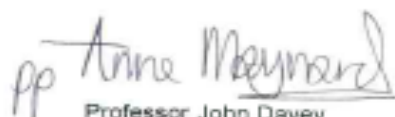
These other approvals may include, but are not limited to:

1. Any necessary agreements, approvals, or permissions required in order to comply with the University of Warwick's Financial Regulations and Procedures.
2. Any necessary approval or permission required in order to comply with the University of Warwick's Quality Management System and Standard Operating Procedures for the governance, acquisition, storage, use, and disposal of human samples for research.
3. All relevant University, Faculty, and Divisional/Departmental approvals, if an employee or student of the University of Warwick.
4. Approval from the applicant's academic supervisor and course/module leader (as appropriate), if a student of the University of Warwick.
5. NHS Trust R&D Management Approval, for research studies undertaken in NHS Trusts.
6. NHS Trust Clinical Audit Approval, for clinical audit studies undertaken in NHS Trusts.
7. Approval from Departmental or Divisional Heads, as required under local procedures, within Health and Social Care organisations hosting the study.
8. Local ethical approval for studies undertaken overseas, or in other HE institutions in the UK.
9. Approval from Heads (or delegates thereof) of UK Medical Schools, for studies involving medical students as participants.
10. Permission from Warwick Medical School to access medical students or medical student data for research or evaluation purposes.
11. NHS Trust Caldicott Guardian Approval, for studies where identifiable data is being transferred outside of the direct clinical care team. Individual NHS Trust procedures vary in their implementation of Caldicott guidance, and local guidance must be sought.
12. Any other approval required by the institution hosting the study, or by the applicant's employer.

There is no requirement to supply documentary evidence of any of the above to BSREC, but applicants should hold such evidence in their Study Master File for University of Warwick auditing and monitoring purposes. You may be required to supply evidence of any necessary approvals to other University functions, e.g. The Finance Office, Research & Impact Services (RIS), or your Department/School.

May I take this opportunity to wish you success with your study, and to remind you that any Substantial Amendments to your study require approval from BSREC before they may be implemented.

Yours sincerely



Professor John Davey
Chair
Biomedical and Scientific
Research Ethics Sub-Committee

Biomedical and Scientific
Research Ethics Sub-Committee
Research & Impact Services
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<http://www2.warwick.ac.uk/services/>

Appendix 18

Publications and Projects

PUBLICATIONS

Azzopardi-Muscat N., Grech K., Cachia JM., Xuereb D. Sharing capacities–Malta and the United Kingdom. In: Rosenmoller M, McKee M, Baeten R, editors. Patient Mobility in the European Union Learning from Experience Copenhagen. Publisher: World Health Organisation Copenhagen. 2006. Pp.119.

Azzopardi-Muscat N., Grech K. Malta. In: Bernd R, Dubois CA, McKee M, editors. The Health Care Workforce in Europe: Learning from Experience. Chapter 5 Malta, Publisher: World Health Organisation. 2006. Pp.59-70

Azzopardi Muscat, N. and Grech, N., 2005. Case-study: Malta. Human resources for health in Europe. Copenhagen, European Observatory on Health Systems and Policies.

Azzopardi Muscat N., Grech K., Buttigieg S. Challenges and policy concerns for health systems in small European states; The European Journal of Public Health 24 (Suppl. 2) October 2014

Azzopardi Muscat N., Grech K. Implementation of the patients’ rights and cross border care directive in Malta: A window of opportunity for domestic health system reform. Health Systems and Policy Monitor Network, Berlin, 2014.

Azzopardi-Muscat N., Funk T., Buttigieg SC., Grech K., Brand H. Policy challenges and reforms in small EU member state health systems: a narrative literature review. European Journal of Public Health, Volume 26, Issue 6, 1 December 2016, Pages 916–922.

Azzopardi-Muscat N., Calleja N., Grech K. Trends in the performance of the Maltese Health System. Seminar on Resilience. WHO Collaborating Centre for Health Systems and Policies in Small States, Islands and Small State Institute, University of Malta. Tuesday 17th October 2017.

Buttigieg, SC., Azzopardi Muscat, N., Grech, K. Malta: Reform of the Medical Profession and Reversal of Brain Drain in Malta: A Success Story in Braithwaite, J., Mannion, R., Matsuyama, J., Shekelle, P., Whittaker, S., Al-Adawi S. (Editors). Health Systems Improvement Across the Globe; Success Stories from 60 Countries. CRC Press; 2017.

Azzopardi-Muscat N., Grech K., Buttigieg SC. Strengthening the primary care sector and workforce in Malta: upskilling, diversifying, empowering in Wismar, M., Glinos IA., Sagan A. (Eds). Patients, peers, professionals: Skill-mix innovations and developments in primary and chronic care settings. (In progress).

- Buttigieg SC., Grech K., Azzopardi-Muscat N. Malta: The National Cancer Plan: Strengthening the System in Braithwaite, J., Mannion, R., Matsuyama, J., Shekelle, P., Whittaker, S., Al-Adawi S (Editors). Health Care Systems: Future Predictions for Global Care. Taylor & Francis. (In progress).
- Grech K., 2017. Quality of Care and Innovative Funding. In EIT Health (Eds). *Assessing Performance and Driving Innovation in Health Systems*. 8 December 2017. Jussieu Campus, Paris.
- Grech K., Azzopardi Muscat N., Calleja N. The performance of the Maltese health system: An idiosyncratic story. *European Journal of Public Health* Volume 25 Supplement 3 (2014).
- Grech K., Lai T. The challenges of developing and implementing a Health System Performance Assessment Framework in small states – the experience of Malta and Estonia. *The European Journal of Public Health* 10/2014; 24 (suppl_2).
- Grech K., Podesta M., Calleja A., Calleja N. Performance of the Maltese Health System. Ministry for Energy and Health (Health), Valletta, Malta. 2015.
- Jakovljevic MM., Camilleri C., Rancic N., Grima S., Jurisevic M., Grech K., Buttigieg S. *Cold War Legacy in Public and Private Health Spending in Europe*. *Frontiers in Public Health* (Health Economics). Under Review.

PROJECTS

- Co-Chair and Member of the European Commission Expert Group on Health System Performance Assessment (2014- date). Reports on Performance Assessment of Quality of Care; Integrated Care; Primary Health Care; Resilience.
- Principal Advisor in EU funded project coordinated by the Strategic Reform Support Service (EU Commission) in developing national Health System Performance Assessment Frameworks for the Governments of Latvia and Slovenia, 2017-2019.
- Collaborator and co-researcher in multi-national and multi-centred EU funded Horizon 2020 project – To Reach, Transforming Innovation in Health Systems.
- Member of the WHO Collaborating Centre for Health Systems and Policies in Small States, Islands and Small State Institute, University of Malta. Responsible for tier on Performance and Governance of Health Systems.